Article History:
Reviewed: 14 June 2022
Revised: 18 July 2022
Accepted: 2 August 2022

DOI: https://doi.org/10.3126/pycnjm.v15i1.56353
PYC Nepal Journal of Management
Vol. XV, No. 1, Page: 44-59
ISSN (Print): 2091-0258, ISSN (Online): 2738-9847

Strength of Learning and Growth Metrics in Non-Financial Organizational Performance

Rewant Kumar Dahal[1]
Bhanu Bhakta Sharma[2]
Bhupendra Jung Shahi[3]

Abstract: *An organization can track its plan, communicate its progress and position, and record the actions and behaviors of its personnel by using performance measurement and management tools. The study's objective was to determine how an employee of a company learns and grows throughout his/her career to enhance the organization's overall performance. The quantitative research approach was followed, and data were collected by an organized questionnaire survey. Three hundred and three responses, utilizing the convenience sampling technique, were gathered from the working representatives of two large telecommunication service provider companies in Nepal. The study observed 17 learning and growth performance parameters to evaluate the non-financial organizational performance model. The model yielded statistically noteworthy ratios at $p \leq 0.05$ for all measured parameters and supported hypothesized paths. The usage of non-financial performance metrics is growing, and it is not typical to use them as the primary metric for evaluating organizational performance. Hence, future researchers are advised to incorporate non-financial and financial metrics into organizational performance assessment and management systems.*

Keywords: *Financial-based performance measures, human resources, information capital, non-financial-based performance measures, organizational culture, and alignment.*

JEL Classification: L25, M40, M49

1 Dr. Dahal, Principal Author, Assistant Professor, He can be reached at rewan.dahal@ncc.edu.np
2 Mr. Sharma, PhD scholar, Corresponding Author, Assistant Professor, He can be reached at bhanu@ncc.edu.np
3 Mr. Shahi, PhD scholar, Co-author, Assistant Professor, He can be reached at bhupendras@ncc.edu.np

I. INTRODUCTION

Performance measurement and management is a set of procedures that an organization employs to keep track of how its strategy is being carried out, disseminate others about its progress and position, and mark the actions and behaviors of its working representatives (Franco et al., 2004). The individual performance or the performance of a group of individuals, procedures, and tools that produce, analyze, and diagnose data utilizing internal and external elements constitute organizational performance (Neely et al., 1995). Performance assessment is a way to judge how well an organization is run and how much value it gives to stakeholders and/or customers (Moullin, 2003). However, performance measurements must be chosen by the organization's setting and context, as they may have varied consequences (Euske et al., 1993). The proper selection of performance indicators is regarded as a vital aspect of achieving corporate strategic goals (Burney et al., 2009)

Financial measures-based performance measurement systems in the preliminary stage focus on financial measures and reflect the static view financial standing of an organization is no longer appropriate in contemporary businesses (Dahal, 2022; Yadav et al., 2013). The financial metrics-based performance reporting doesn't meet the needs of stakeholders and can't look at how the market is changing and how competitors are responding. As a result, it cannot provide the accurate and latest information for an organization to continually meet customers' and stakeholders' demands. In recent years, academicians and professionals have emphasized and highlighted the importance of integrating non-financial measures into an organization's performance reporting, which is increasingly considered an essential element of corporate information.

No performance-measuring method is available in today's highly competitive global corporate environment that can wholly satisfy management's requirements (Khanmohammadi et al., 2015; Shukla & Roopa, 2018). Since the 1980s, academic research has endeavored to assist organizational managers in overcoming the shortcomings of existing performance assessment methods that are based on financial metrics. Throughout the 1990s, researchers and practitioners have demonstrated an increasing interest in building multi-dimensional performance measuring systems since FPMs (financial-based performance measures) are no longer relevant in a continually changing business environment.

Out of several dimensions of the NPMs (non-financial-based performance measures), the study of the strength of learning and growth measures in NFOP (non-financial organizational performance) reveals how an employee of an organization learns and develops during their career to enhance the overall organizational performance (Memon & Baladi, 2021). When it comes to measuring NFOP that is based on other than money, in these consequences, the human element is very crucial since everything happens because of people. People act in different ways based on their culture, which is made up of their values, beliefs, and knowledge. Each organization has its own culture,

and the way people work affects how well they do their jobs, which in turn affects how well the organization does as a whole. Organizations should use HR (human resources) as much as possible to help people reach their organization's goals. So, the performance of the individual employee contributes to the improvement in the performance of the organization.

In organizational performance measurement systems, learning and growth measurements take into account the purposes of the individuals, organizational alignment, and information technology that will enable the enhancement of the many process goals (Atkinson et al., 2014). The study's primary objective was to examine the increasing significance of non-financial measures, particularly learning and growth measures, which contribute to the organization's performance and value. Though they are a major determinant of long-term profitability and corporate success, they are not reflected in the balance sheet.

In general, a performance assessment system monitors financial outcomes and disregards non-financial consequences. For future profitability and growth, it is vital to monitor non-financial metrics that build or destroy relationships with employees, customers, processes, systems, and society. Since there is a great deal of unpredictability and new risks in the environment, businesses must employ innovative tactics to survive and achieve their performance objectives (Gyemang & Emeagwali, 2020). As opposed to financial measurements, the information contained in NPMs is not obtained from the company's financial statements. In most cases, the NPMs are used to address specific challenges and circumstances within an organization.

The majority of Nepalese firms employ the conventional performance measurement system, which relies on FPMs (financial-based performance measures). Executives need a new approach to assess the efficacy of their organizations i to predict their future performance and align the organization behind new initiatives that will result in a breakthrough performance. As a result, non-financial measures in performance measurement transformed relevant strategic plans into the organization's daily marching orders. Therefore, this study could assist Nepalese business leaders in identifying alternative methods for gauging the success of their company besides profits.

II. LITERATURE REVIEW

NPMs are becoming an important kind of information to share in the business world. The NPMs provide additional information on managers' actions beyond what is conveyed by the FPMs, and they emphasize a long-term perspective that leads to improved performance (Said et al., 2003). By incorporating NPMs into organizational performance, an enterprise can align business results with its strategy and remain competitive in the marketplace (Dahal, 2022). Performance measurement transformation does not necessitate extensive modifications to current measurement systems or infrastructures. It begins with "changing the paradigm of organizational measuring," i.e., how individuals within the organization think or view performance assessment (Spitzer, 2007).

The NPMs generate future-oriented information that cannot be captured by the FPMs (Decoene & Bruggeman, 2006; van Veen-Dirks, 2010). According to Decoene and Bruggeman (2006), the NPMs also assist employees in envisioning long-term priorities and channeling their behavior. As both short-term and long-term markers of progress, the NPMs may be as useful as the FPMs are widely used. The NPMs enhance managers' performance by providing more useful and better performance indicators (Banker et al., 2005; Dahal, 2022, Kaplan & Norton, 1992). In addition, some scholars say that NPMs enable employees to be more flexible and adaptable in their responses (Moulang, 2013). The NPMs promote creativity among employees, whereas the FPMs primarily emphasize monetary values. Flexibility and adaptability lead to novel and innovative means of achieving objectives. Innovation has a greater likelihood of boosting organizational success (Balsam et al., 2011). According to Hussein et al. (2014), learning organizational culture can directly affect the performance and innovativeness of an organization, potentially resulting in long-term success. According to Dahal (2022), assessing the non-financial organizational performance of a telecommunication business can be based on several key parameters like the customer perspective, the social and environmental perspective, the technological and innovation perspective, the learning and growth perspective, the internal business perspective, corporate governance perspective, etc. Based on the objectives of the study, the following learning and growth metrics are frequently employed to evaluate the telecommunication business's non-financial performance:

Human Resources (HR) Metrics

Human resource is a vital skill for organizations since it leads to enhanced organizational performance and employee satisfaction, which serves as a motivator to work (Atkinson et al., 2014). In a highly competitive market, the success of a business hinges on customer satisfaction. Customer satisfaction is contingent upon the wholehearted efforts and services of inspired employees (Al-Weshah et al., 2018). Employee capabilities ensure that individuals receive the appropriate acknowledgment, support, education, and training to advance and preserve their competence to perform successfully in their roles (Gyemang & Emeagwali, 2020). Training and development are an organization's deliberate efforts to assist the working representatives in acquiring job-related knowledge, abilities, and habits they need to do their jobs well (Noe, 2010). Employees who care about their jobs and organizations enjoy competitive benefits, such as better customer service, higher productivity, and lower employee turnover (Vance, 2006). Corporations can retain the best personnel from leaving by offering them greater opportunities for advancement (Noe, 2010). Employees have the right to perform in a healthy and safe environment, and it is the company's job to make sure that employees are safe at work (Atkinson et al., 2014). The workplace policies and practices of an organization about equal opportunities, fair pay, healthy and safe workplaces, and human rights obligations affect how happy the employees are and how well the organization does (Atkinson et al., 2014).

Information Capital (IC) Metrics

Information capital is the availability of information systems, libraries, databases, networks, and other necessary infrastructure that gives the organization access to information and knowledge (Kaplan & Norton, 2004). A precise definition of IC (information capital) boosts an organization's expertise to generate competitive advantages and its employees' abilities to meet customers' requests (Atkinson et al., 2014). Information management is becoming increasingly linked and synchronized with organizational activities, resulting in better productivity and improved operations management (Kaplan & Norton, 2004). Preparedness of IC quantifies the extent of readiness of the organization's information capital system to assist its strategy (Dahal et al., 2020). A solid technology infrastructure provides employees with opportunities for ongoing learning and professional development and contributes to their improved performance (Atkinson et al., 2014).

Organizational Culture and Alignment (OCA) Metrics

Organizational culture and alignment refer to the organization's culture and environment, as well as the objectives' compatibility with that culture (Atkinson et al., 2014). Organizational culture is what people think, feel, and do at work and in the workplace based on their beliefs, shared values, and rules (Schein, 2010). Such culture can the efficiency with which an organization performs its duties, the satisfaction of the employees with their jobs, and their confidence in their ability to solve problems (Kotter, 2012). Organizational learning is the procedure by which a corporation aligns and/or transforms itself by using and improving its corporate knowledge resources to accommodate changes in its internal and external environments and keep its competitive edge (Chen, 2005; Dahal, 2022). Organizational structures are work environments that make it possible for people to do their jobs fairly. The framework of assignment and reporting connections directs, supervises, motivates, and coordinates people to work together to reach organizational goals (Atkinson et al., 2014). Transformational leadership motivates collaborators and leaders to pursue fundamental alterations that replicate their common goals (Mirkamali et al., 2011). Empowerment gives a person the freedom to think, act, and make decisions on their own (Akhavan & Jafari, 2008). Comparing internal and external job descriptions, duties, and responsibilities to estimate the market rate for each position is the objective of pay benchmarking (Atkinson et al., 2014). Teamwork encourages new ways of working that can be used to make it easier for organizations' human resources to contribute to their success (Doorewaard et al., 2002).

Conceptual Framework

The NPMs make business/organizational trends visible and assist in holding management accountable (Shukla & Roopa, 2018). Nevertheless, the expanding body of literature regarding organizational performance is somewhat fragmented; multiple points of view are espoused, but there is no universally acknowledged method for bringing these ideas together. The selection of performance measurements is one of the greatest issues organizations confront (Ittner & Larcker, 1998). There are various theoretical contributions

but no general theory to organizational performance measurement. However, this study has been based on contingency (contingent variables) and stakeholders (employees as the respondents) theories. Literature suggests that NPMs come from within an organization and are affected by more fundamental factors of organizational growth as a whole. In today's knowledge-based economy, organizations grow mostly because of their ability to come up with new ideas, which is fueled by the skills of their employees (Din et al., 2016). Figure 1 shows how learning and growth metrics are related to the non-financial performance of an organization.

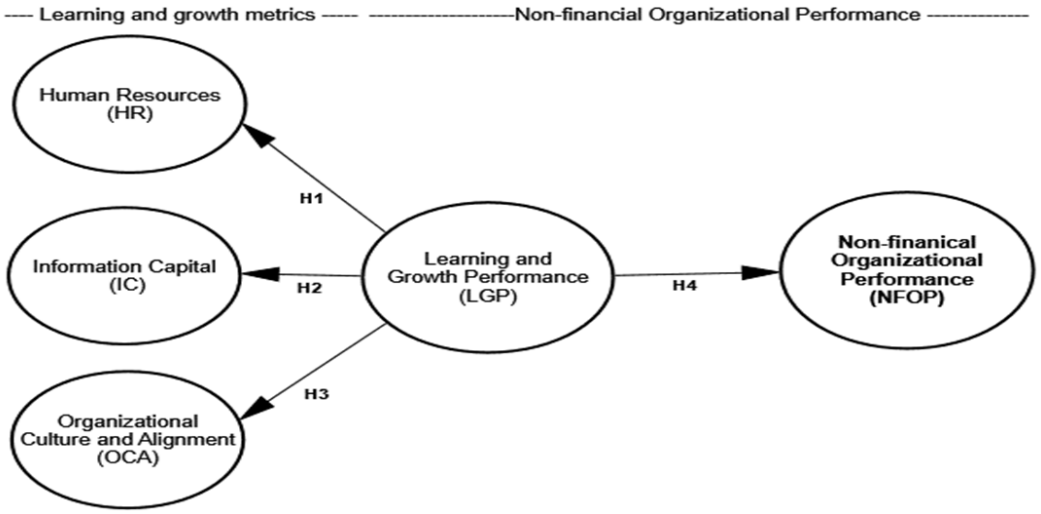

Figure 1. *The hypothesized model*

Study Hypotheses:

H1: The LGP has significantly based on HR metrics.

H2: The LGP has significantly based on IC metrics.

H3: The LGP has significantly based on OCA metrics.

H4: The LGP has a significant impact on the NFOP.

III. METHODOLOGY

The quantitative research approach was utilized to gather information from the opinions of the targeted respondents, and confirmatory factor analysis (CFA), structural equation modeling (SEM), and path analysis (PA) were undertaken to draw the study's conclusion. The quantitative data were collected by a structured questionnaire survey.

Population, Sample, and Sampling Technique

The study population comprises all the telecommunication operators in Nepal and their working representatives. The two largest telecommunications service providers in Nepal, Ncell and NT (Nepal Telecom), were chosen as representative companies

since they covered nearly 94 % of the market share in the Nepalese telecommunication service industry (Nepal Telecommunication Authority, February 2022). The working representatives who held a position of officer or higher within their company were the intended respondents of the study since it was supposed that they could comprehend and interpret the learning and growth indicators in NFOP.

Table 1
Organization of survey instrument

Section / Theme	Construct	Variables	Measure-ment scale	Remarks
A General demographics	-	Representative company Working section Job title Sex Age group Years of professional experience	Various options	-
B Learning and growth metrics	HR	HR_08 (Job satisfaction) HR_10 (Training and development) HR_11 (Employee engagement) HR_12 (Talent management) HR_13 (Employees' health & safety) HR_14 (Human rights in the workplace)	6-point Likert scale	1 = strongly disagree to 6 = strongly agree
	IC	IC_15 (Describe information capital) IC_16 (Align and integrate information capital) IC_17 (Measure information capital readiness) IC_18 (Technology infrastructure)		
	OCA	OCA_19 (Organizational culture) OCA_20 (Organizational learning) OCA_21 (Organizational structures) OCA_22 (Transformational leadership) OCA_23 (Empowerment) OCA_24 (Pay benchmarking) OCA_25 (Teamwork)		
C Overall NPMs	NFOP	NFOP_26 (Overall HR) NFOP_27 (Overall IC) NFOP_28 (Overall OCA)		
Total		27		

In January 2022, the human resources departments of the sample organizations disclosed that a total of 1,430 employees (1,270 from NT and 160 from Ncell) were working as junior officers or above in their respective organizations. The study employed a convenient sampling technique for collecting primary information from the respondents. The respondents who worked outside the Kathmandu Valley were surveyed using an online questionnaire for this study. Each province had at least two regional offices that were covered. The researchers contacted the head of the regional offices or the head of human resources and provided a brief overview of the study. The authorities were also requested to encourage their colleagues to complete the online survey. In contrast,

a field survey was conducted in Kathmandu Valley. The researchers wished to collect information from all the targeted respondents of Ncell. For NT, researchers visited all the offices to collect the required information.

The sample size was determined according to Krejcie and Morgan's (1970) general scientific parameters. In accordance with the parameters for a confidence level of 95 % and an error margin of 5 %, 303 responses were collected as the study sample. Furthermore, researchers frequently rely on "rules of thumb" for calculating the sample size for SEM because there is no single or universally accepted computation or procedure. The majority of scholars concur that SEM calls for "large" sample sizes, but what does this actually mean? The number 300 is one that is frequently used (Comrey & Lee, 2013; Tabachnick & Fidell, 2013). Hence, the study's total sample size was 303.

Survey Instrument

The survey instrument consisted of 27 items and was divided into three sections. The items were made to get first-hand information from the working people of the sample organizations who were junior officers or higher and were expected to comprehend the consequence of NPMs. The instrument designed for the survey has organized in Table 1.

Table 2
General demographics of the respondents

	Respondents in			Respondents in	
	Nos	%		Nos	%
Representative company:			Sex:		
Ncell	69	22.8	Female	82	27.1
NT	234	77.2	Male	221	72.9
Working section:			Age group:		
Account / Finance	86	28.4	56 Yrs. and above	04	1.3
General administration	51	16.8	46 – 55 Yrs.	60	19.8
Management	57	18.8	36 – 45 Yrs.	136	44.9
Technical / IT	97	32.0	26 – 35 Yrs.	101	33.3
Legal	12	4.0	25 Yrs. and less	02	0.7
Job title:			Years of professional experience:		
Assistant	95	31.4	21 Yrs. and above	47	15.5
Officer	147	48.5	16 – 20 Yrs.	44	14.5
Manager	50	16.5	11 – 15 Yrs.	72	23.8
Executive	11	3.6	6 – 10 Yrs.	119	39.3
			5 Yrs. and less	21	6.9
Total of each section	303	100.0	Total of each section	303	100.0

Data Collection

The questionnaires were distributed via field and an online survey. A field survey was undertaken at Kathmandu Valley during the months of January to April 2022. One hundred working representatives of Ncell were approached to take part in the survey. Out of which 57 responses were returned, 53 were filled up properly. Similarly, 400 questionnaires were distributed to the targeted respondents of NT. One hundred ninety-five responses were returned, and 176 were properly filled up. Instead, an online survey was conducted during the period of January to June 2022, addressing the respondents of the sample organization who worked outside the Kathmandu Valley. A total of 260 questionnaires were sent (60 to Ncell and 200 to NT), and 74 properly filled-up responses (16 from Ncell and 58 from NT) were received. Therefore, a total of 760 respondents were approached, 326 were returned, and 303 were properly filled up and used in the study. The general demographics of the respondents are summarized in Table 2.

The respondents' general demographics (i.e., representing company, working section, job title, sex, age, and years of professional experience) might have an impact on the quality of their perceptions and questionnaire responses.

Table 3
Reliability insights

Constructs	Variables	Variable loading	No of variables	Cronbach's alpha	Av. inter-variable correlation coefficient
HR	HR_08 (Job satisfaction)	0.687	6	0.811	0.417
	HR_10 (Training and development)	0.608			
	HR_11 (Employee engagement)	0.593			
	HR_12 (Talent management)	0.713			
	HR_13 (Employees' health & safety)	0.743			
	HR_14 (Human rights in the workplace)	0.531			
IC	IC_15 (Describe information capital)	0.703	4	0.717	0.388
	IC_16 (Align and integrate information capital)	0.519			
	IC_17 (Measure information capital readiness)	0.790			
	IC_18 (Technology infrastructure)	0.564			
OCA	OCA_19 (Organizational culture)	0.787	7	0.890	0.488
	OCA_20 (Organizational learning)	0.775			
	OCA_21 (Organizational structures)	0.764			
	OCA_22 (Transformational leadership)	0.735			
	OCA_23 (Empowerment)	0.739			
	OCA_24 (Pay benchmarking)	0.643			
	OCA_25 (Teamwork)	0.558			
NFOP	NFOP_26 (Overall HR)	0.682	3	0.718	0.458
	NFOP_27 (Overall IC)	0.684			
	NFOP_28 (Overall OCA)	0.669			
Cut-off value		≥ 0.50		≥ 0.70	0.15 to 0.50
Recommended by:		Hair et al., 2006		Hair et al., 2006; Nunnally, 1993	Clark & Watson, 1995

Results and Analysis

Before evaluating the hypothesized model, the study conducted a reliability and validity analysis to ensure whether or not the survey instrument and its constructs were suitable for the purpose of the study. Cronbach's alpha and the average inter-item correlation were utilized in order to assess the reliability of the variables. The results of the test are presented in Table 3.

The values of alpha were greater than the desired value of 0.70, and the average inter-variable correlation coefficients were within the recommended range of 0.15 to 0.50. In addition, in order to determine the presence of CMB (common method bias) and its degree of severity, the study conducted the Harman single-factor test as recommended by Podsakoff et al. (2003). The single factor in the four-latent factor model having with explained 41.95 % of the variation, which was less than the threshold value of 0.5, as advised by Cho and Lee (2012).

In order to analyze the study's overall external validity, the Kaiser-Meyer-Olkin (KMO) and Bartlett's Tests of Sphericity were utilized. Significance of KMO sample test of adequacy (test value = 0.911, which was higher than the cut-off value of 0.5 as suggested by Kaiser, 1974) and Bartlett's test of sphericity (approximate chi-square = 3094.427, df = 190, Sig. = 0.000) supported the external validity of the study instrument. The study variables and constructs' internal validity were assessed through convergent and discriminant validity. Table 4 demonstrates the internal validity test insights.

Table 4
Internal validity test insights

	Convergent validity		Discriminant validity				
Constructs	CR (Construct Reliability)	AVE (Average Variance Extracted)	MSV (Maximum Shared Variance)	ASV (Average Shared Variance)	Square root of AVE (in bold) and Inter-construct correlation		
					HR	IC	OCA
HR	0.813	0.423	0.885	0.863	0.650		
IC	0.743	0.426	0.842	0.840	0.842	0.653	
OCA	0.881	0.516	0.885	0.864	0.885	0.834	0.713
Cut-off value	≥ 0.7	≥ 0.40	< 0.70 AVE > MSV	< 0.70 AVE > ASV	AVE's Square Root > Inter-construct Correlations		
Suggested by:	Fornell & Larcker, 1981	(Bagozzi & Baumgartner, 1994)	Meyers et al., 2006	Meyers et al., 2006	Fornell & Larcker, 1981		

The statistics showed that the independent latent constructs' convergent validity was satisfied, whereas the discriminant validity criteria were not met and indicated the problem of multicollinearity. Therefore, the independent latent variables were not discernible and used to measure the notion of LGP.

The study employed SEM (structural equation modeling) and PA (path analysis) to evaluate the significance of the hypothesized paths. The SEM and PA are multivariate

statistical analysis methods used to examine structural correlations between independent and dependent variables. In addition to analyzing the structural relationship between measured variables and latent constructs, these techniques combine factor analysis and multiple regression analysis. The NFOP was assessed by 17 observed measures within four latent measures, as presented in Figure 2, along with the key parameter estimates and model fit indices.

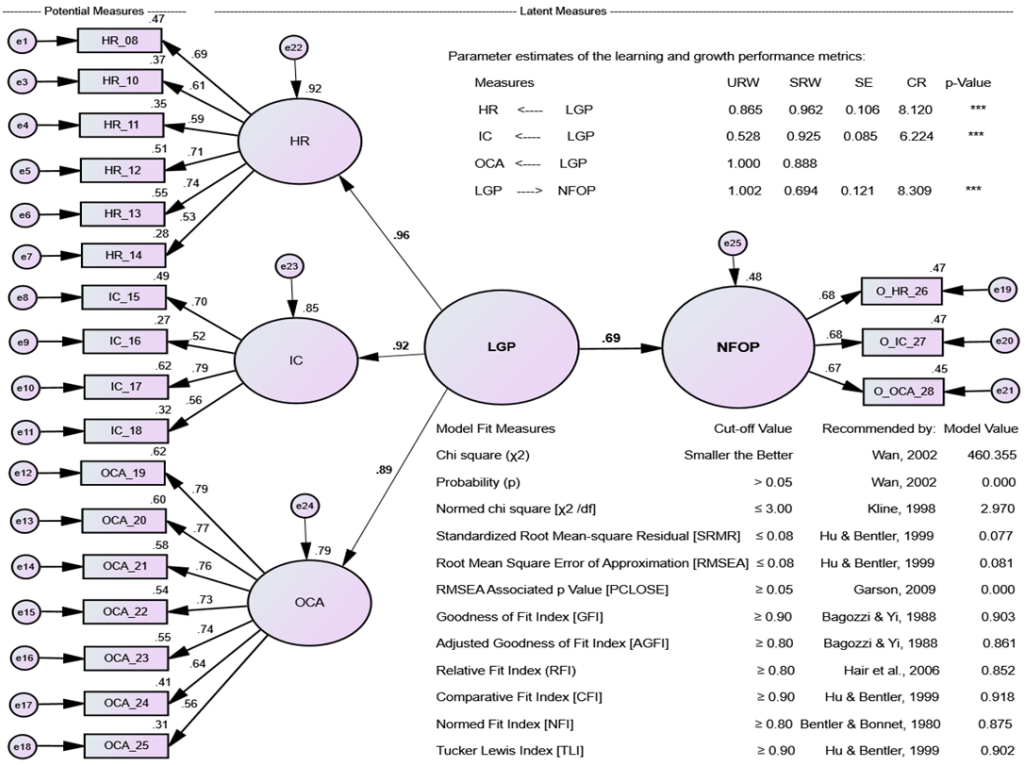

Figure. *2 NFOP model*

The NFOP model yielded statistically significant critical ratios at $p \leq 0.05$ for all measuring 17 test variables. All of the model fit indices fell within the range of acceptable cut-off values, which demonstrated that the NFOP model was well represented by the data.

Table 5

Testing hypotheses

Statements		Outcome	Remarks
H_1:	*The LGP has significantly based on HR metrics.*	β = 0.962; p = 0.000	**Accepted**
H_2:	*The LGP has significantly based on IC metrics.*	β = 0.925; p = 0.000	**Accepted**
H_3:	*The LGP has significantly based on OCA metrics.*	β = 0.888; p = 0.000	**Accepted**
H_4:	*The LGP has a significant impact on the NFOP.*	β = 0.694; p = 0.000	**Accepted**

The results from the testing hypotheses indicated that the HR metrics were the dominant contributor in the LGP ($\beta = 0.962$, $p < 0.01$), followed by the IC metrics ($\beta = 0.925$, $p < 0.01$), and the OCA metrics ($\beta = 0.888$, $p < 0.01$). Finally, the LGP has a positive and significant impact on NFOP ($\beta = 0.694$, $p < 0.01$).

VI. DISCUSSIONS AND CONCLUSIONS

Each corporation has its reasons for measuring performance. Different schools of thought have utilized subjective (non-financial) performance metrics to scale and assess organizational performance. In these consequences, the study explored the LGMs in the NFOP system. The study's literature research revealed 18 observed variables within three constructs for assessing the LGP. The study did not recognize the observed variable 'employee capabilities' (VAR_09) as a significant contributor to the LGP in the Nepalese context, despite the fact that it was noteworthy in previous research (like Dahal, 2022; Ishtiaque & Sarbabidya, 2013; Kaplan & Norton, 2004).

The latent variable 'HR' was evaluated from six observed NPMs: HR_08 ($\beta = 0.678$, $p < 0.01$); HR_10 ($\beta = 0.608$, $p < 0.01$); HR_11 ($\beta = 0.593$, $p < 0.01$); HR_12 ($\beta = 0.713$, $p < 0.01$); HR_13 ($\beta = 0.743$, $p < 0.01$); and HR_14 ($\beta = 0.531$, $p < 0.01$). As with previous studies (i.e., Atkinson et al., 2014; Noe, 2010; etc.), the study showed that the NPMs directly influence the HR performance and indirectly the LGP ($\beta = 0.962$, $p < 0.01$). Individuals act differently depending on their values, beliefs, and knowledge which affect performance.

The latent variable 'IC' was assessed from four observed NPMs: IC_15 ($\beta = 0.703$, $p < 0.01$); IC_16 ($\beta = 0.519$, $p < 0.01$); IC_17 ($\beta = 0.790$, $p < 0.01$); and IC_18 ($\beta = 0.416$, $p < 0.01$). Information technology has changed the way of conducting business transactions and meeting customers' growing demands for most organizations. In line with the previous studies (Josee et al., 2016; Liao & Cheung, 2012; etc.), the IC ($\beta = 0.925$, $p < 0.01$) had a significant outcome on LGP. Studies have shown that IC is a key part of knowledge management, which leads to a process of continuous learning at all levels of a business.

The latent variable 'OCA' was weighed from seven observed NPMs: OCA_19 ($\beta = 0.787$, $p < 0.01$); OCA_20 ($\beta = 0.775$, $p < 0.01$); OCA_21 ($\beta = 0.764$, $p < 0.01$); OCA_22 ($\beta = 0.735$, $p < 0.01$); OCA_23 ($\beta = 0.739$, $p < 0.01$); OCA_24 ($\beta = 0.643$, $p < 0.01$); and OCA_25 ($\beta = 0.558$, $p < 0.01$). Earlier studies (like Ahmed & Shafiq, 2014; Doorewaard et al., 2002; Kotter, 2012; Rankinen et al., 2009; Schein, 2010; etc.) showed that organizational performance is the function of the basic outcomes of the instillation of a strong culture in the organization's systems which enable it to perform its routines undoubtedly. Hence, the OCA had a significant effect on the LGP ($\beta = 0.882$, $p < 0.01$).

This study presents evidence regarding the relationships between three principal contextual variables – HR, IC, and OCA – and the use of LGP in NFOP. Based on a sample of 303 respondents, the study found that the LGP had a positive and significant impact on NFOP in Nepalese telecommunication service provider companies. According

to Nair (2004), the LGP refers to how individuals assimilate and implement new ideas. The study supplemented Atkinson et al.'s (2014) work that the LGP identifies the individual's objectives, information capital, and organizational alignment, which drive the NFOP. It is believed that a timely review of the LGP inside an organization boosts employee skills and satisfaction, hence creating a new competitive environment, fostering the growth of strategic capabilities, and attracting and retaining top talents. In consistent with Adhikari and Chalise's (2021) conclusion, this study concludes that through the incorporation of NFPMs into the organizational performance measurement system, the Nepalese telecommunications sector has been gradually transforming and upgrading itself in response to changes in the industry's strategic objectives. It is believed that the study's findings aid the Nepalese telecommunications businesses in adapting to unanticipated changes in the business environment and assist managers in making better decisions to enhance organizational performance.

V. LIMITATIONS AND IMPLICATIONS

The primary limitation was that only a quantitative survey using an organized questionnaire was used to collect the necessary data. A larger number of participants would have boosted the finding's generalizability and reliability. Although the usage of NPMs is growing, it is not typical to use them as the main metric for evaluating organizational performance. In conjunction with the benefits of FPMs, the NPMs could acquire further advantages. For example, each of the non-financial performance metrics explains a proportion of the synergistic effects on organizational effectiveness. Furthermore, the study's outcome provides statistical evidence for quantifying the NFOP and highlights the strength of the Nepalese telecommunications industry's learning and growth performance metrics. Such strength confers more evidence for diverse managerial decisions.

The study is guided by contingency and stakeholder theories that provide a trustworthy lens through which to analyze various variables and alternative methods of organizational performance measurement. Every indicator of an organization's performance has advantages and disadvantages and offers researchers an opportunity to succeed. It sought to fill a gap in the literature and address Nepalese concerns overlooked by earlier scholars. Future researchers are therefore encouraged to incorporate both FPMS and NPMs into organizational performance assessment and management systems.

REFERENCES

Adhikari, N. R., & Chalise, D. R. (2021). Performance measurement practices in Nepalese telecommunication industries. *Management Dynamics*, *24*(1), 107–116. https://doi.org/10.3126/md.v24i1.47549

Ahmed, M., & Shafiq, S. (2014). The impact of organizational culture on organizational performance: A case study of the telecom sector. *Global Journal of Management and Business Research: An Administration and Management, 14*(3), 20-30.

Akhavan, P., & Jafari, M. (2008). Towards learning in SMEs: An empirical study in Iran. *Development and Learning in Organizations, 22*(1), 17-20.

Al-Weshah, G. A., Al-Manasrah, E., & Al-Qatawneh, M. (2018). Customer relationship management systems and organizational performance: Quantitative evidence from the

Jordanian telecommunication industry. Journal of Marketing Communications, *25*(8), 799-819. https://doi.org/10.1080/13527266.2018.1449007

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.

Bagozzi, R. & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science, 16*(1), 74-94.

Bagozzi, R. P., & Baumgartner, H. (1994). The evaluation of structural equation models and hypothesis testing. *In* R. P. Bagozzi (ed.). *Principles of Marketing Research* (pp. 386–422). Cambridge: Blackwell.

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.

Banker, R. D., Potter, G., & Srinivasan, D. (2005). Association of non-financial performance measures with the financial performance of a lodging Chain. *Cornell Hotel and Restaurant Administration Quarterly*, *46*(4), 394-412.

Bentler, P. M., & Bonnet, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological Bulletin*, *88*, 588-606.

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.

Chen, G. (2005). An organizational learning model based on western and Chinese management thoughts and practices. *Management Decision, 43*(4), 479-500.

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

Clark, L. A., & Watson, D. (1995). Constructing validity: Basic issues in objective scale development. *Psychological Assessment, 7*(3), 309-319.

Comrey, A. L., & Lee, H. B. (2013). *A first course in factor analysis.* New York: Psychology Press

Dahal, R. K. (2022). *Non-financial measures in the organizational performance of the Nepalese Telecom Industry* [Doctoral dissertation, Tribhuvan University]. Kirtipur: Office of the Dean, Faculty of Management, TU.

Dahal, R. K., Bhattarai, G., & Karki, D. (2020). Determinants of technological and innovation performance of the Nepalese cellular telecommunications industry from the customers' perspective. *Advances in Science, Technology and Engineering Systems Journal, 5*(6), 1013-1020. https://dx.doi.org/10.25046/aj0506122.

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.

Din, M. U., Mangla, I. U. & Jamil, M. (2016). Public policy, innovation and economic growth: An economic and technological perspective on Pakistan's telecom industry. *The Lahore Journal of Economics, 21*, 369-391.

Doorewaard, H., Huys, R., & Van Hootegem, G. (2002). Team responsibility structure and team performance. *Personnel Review*, *31*, 356–370.

Euske, K., Lebas, M., & McNair, C. (1993). Performance management in an international setting. *Management Accounting Research, 4*(4), 275–299.

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research, 18*(1), 39-50.

Franco, S.M., Marr, B., Martinez, V., Gray, D., Adams, C., Micheli, P., ….., Neely, A. (2004). *Towards a definition of a business performance measurement system*. The six international conference on performance measurement, University of Cambridge, UK, 395-405.

Garson, G. D. (2009). *Structural equation modeling*. Retrieved June 2018, from http://faculty.chass.ncsu.edu/garson/PA765/structur.htm.

Gyemang, M. D., & Emeagwali, O. K. (2020). The role of dynamic capabilities, innovation, organizational agility, and knowledge management on competitive performance in the telecommunication industry. *Management Science Letters, 10,* 1533-1542. https://dx.doi.org/10.5267/j.msl.2019.12.013

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). *Multivariate data analysis.* New Jersey: Prentice Hall, Pearson Education, Inc.

Hu, L., & Bentler, P. (1999). Cut-off criteria for fit indices in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, *6*(1), 1-55.

Hussein, N., Mohamad, A., Noordin, F., & Ishak, N. A. (2014). Learning organization and its effect on organizational performance and organizational innovativeness: A proposed framework for Malaysian Public Institutions of Higher Education. *Procedia-Social and Behavioral Sciences*, *130*, 299-304.

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.

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

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.

Josee, V. M., Gongera, G. E., & Anyika, E. (2016). Critical analysis of adoption of modern technology and its impact on the financial performance of telecommunication industry in Rwanda. *Social and Basic Sciences Research Review, 4*(9), 166-176.

Kaiser, H. F. (1974). An index of factorial simplicity. *Psychometrika, 39,* 31–36.

Kaplan, R. S., & Norton, D. P. (1992). The balanced scorecard - measures that drive performance. *Harvard Business Review*, *70*(1), 71–79.

Kaplan, R., & Norton, D. (2004). The strategy map: Guide to aligning intangible assets. *Strategy & Leadership, 32,* 10–17. https://doi.org/10.1108/10878570410699825

Kaplan, R. S., & Norton, D. P. (2004). Measuring strategic readiness of intangible assets. *Harvard Business Review, 82,* 52-63.

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.

Kline, R. B. (1998). *Methodology in the social sciences: Principles and practice of structural equation modeling.* New York: Guilford Press.

Kotter, J. (2012). *Corporate culture and performance*. New York: Free Press.

Krejcie, R., & Morgan, D. (1970). Determining sample size for research activities. *Educational & Psychological Measurement, 30,* 607 - 610.

Liao, G., & Cheung, S. (2012). Soft and hard operating costs management - A reappraisal. *Journal of Management Studies, 34*(1), 53 - 73.

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

Meyers, L. S., Gamst, G., & Guarino, A. J. (2006). *Applied multivariate research: Design and interpretation.* Sage Publications, Inc.

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.

Moulang, C. (2013). Performance measurement system use in generating psychological empowerment and individual creativity. *Accounting & Finance, 55*(2), 519–544. https://doi.org/10.1111/acfi.12059

Moullin, M. (2003). Defining performance measurement. *Perspectives on Performance*, *2* (2), 3.

Neely, A., Gregory, M., & Platts, K. (1995). Performance measurement system design: A literature review and research agenda. *International Journal of Operation and Production Management, 15*(4), 1228-1263.

Nepal Telecommunication Authority (February 2022). Management information system report, *157*(207), 1-11.

Nair, M. (2004). *Essential of balanced scorecard*. John Wiley & Sons.

Noe, R. A. (2010). *Employee training and development* (5th ed.). New York: McGraw-Hill/Irwin.

Nunnally, J. C. (1993). *Psychometric theory (3rd ed.)*. New York: McGraw-Hill.

Podsakoff, P. M., MacKenzie, C. B., Lee, J-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*(5), 879–903. https://doi.org/10.1037/0021-9010.88.5.879

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,* 403-416.

Said, A. A., HassabElnaby, H. R., & Wier, B. (2003). An empirical investigation of the performance consequences of non-financial measures. *Journal of management accounting research, 15,* 193-223.

Schein, E. H. (2010). *Organizational culture and leadership*. San Francisco: Jossey-Bass.

Shukla, S., & Roopa, T.N. (2018). A study on performance of telecom service market: Case of Karnataka, India, *International Journal of Business Excellence*, *15*(1), 66–94. https://doi.org/10.1504/IJBEX.2018.091281

Spitzer, D.R. (2007). *Transforming performance measurement: Rethinking the way we measure and drive organizational success.* New York: AMACOM

Tabachnick, B., & Fidell, L. (2013). *Using multivariate statistics.* Boston: Pearson Education.

van Veen-Dirks, P. (2010). Different uses of performance measures: The evaluation versus reward of production managers. *Accounting, Organizations, and Society. 35,* 141-164. https://doi.org/10.1016/j.aos.2009.02.002.

Vance, R. J. (2006). *Employee engagement and commitment*. Alexandria, VA: Society for Human Resource Management (SHRM) Foundation.

Wan, T. T. H. (2002). *Evidenced-based health care management: Multivariate modeling approaches*. Norwell, MA: Kluwer Academic Publishers.

Yadav, N., Sushil, & Sagar, M. (2013). Performance measurement and management frameworks: research trends of the last two decades. *Business Process Management Journal, 19*(6), 947–971. https://doi.org/10.1108/BPMJ-01-2013-0003

Funding

The authors received no funding or financial support in carrying out the research.

Conflict of Interest

The authors declared having no conflict of interest in the research work.