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Organizational analysis of the aviation industry from the performance-based perspective

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Abstract
We all are aware of the fact that performance of an organization is definitely an important factor for proper output of an organization. So, performance based measurement of organizational performance is commonly used tool in the recent years. In this research paper, I would be presenting on six selected general but crucial operational performance-based indicators, i.e. effectiveness, efficiency, productivity, profitability, returns on investment, and benefit-cost ratio and their applications as well. With each measurement, their goals and potential impacts have also been explored. Also, errors, risks, limitations to measurements have been studied and a final check for validity, applicability, accountability, and usability of these measurements are also discussed. This research paper will also prove to be a simple, yet, practical guide to measurement of organizational performance as well as human performance technology practitioners' accountability. Thus, this research paper would prove to be an asset that will add to continuous improvement of not only the organization but the human practitioners too.
For this research paper, 10 different airlines were evaluated based on their performance, using performance measurements. Results revealed that most of their performances were satisfactory, and few that remained have rooms for improvement.

Keywords: aviation industry, organizational analysis, organizational performance measurement, and performance based prospective

1. Introduction
It is said that before we can improve something, we have to be able to measure it. From this, it can easily be inferred that anything that you want to improve can be measured, or say, can be quantified. So basically, for improving performance of an organization, it should first be measured; and by doing so, we would actually be improving it. Even from our daily incidences, we wouldn't be wrong to say that 'measurement is the first step to improvement'. Measurement allows stimulation of positive action. Any person engaged in management should however, be aware that when used ineffectively and at a wrong time, measurement might result in negative consequences. So, proper study of the environmental conditions and analyzing any potential negative consequences should be done beforehand.
The six performance indicators mentioned previously, are presented relative to their specific goals, potential impacts, and effects. These six indicators have been selected are based on the frequency of application, purpose, and criticality. While measuring these indicators, first, the set of performance measurements (in quality and quantity) should be determined and they will have to be focused to balance and aligned to personal and organizational goals or benchmarks. Second, it should be verified on how these measures will be arranged and executed to effectively change and improve performance. Third, we should focus more on outcomes than output. When measurements are mostly outcome-focused, we can properly deduce the extent of contribution of a produce, program, or service to achieve any desired result. Outcome-based measurements absolutely portray organizational performance. Measurement of these indicators is even vaster than what have been mentioned in this paper. However, the general methods, goals and potential effects are mentioned in brief but enough for the intended purpose.
Performance can be measured in different prospective: Financial prospective, Business Prospective, Customer Prospective, Innovation and Learning Prospective, Competitor Prospective and Performance Based Prospective. The indicators of performance measurements are Effectiveness, Efficiency, Productivity, Profitability, Return on Investment (ROI), and Benefit-Cost Ratio. All these indicators are used in measuring performance of Nepali Aviation. Those indicators from Nepali aviation industries are compared to find out the actual performance based on performance based prospective. Analyses of the result are tabulated in the following result section of this seminar paper. This research article will specifically focus on Performance based Prospective to measure organizational performance.
Performance based indicators are interconnected; hence, it is very important for the evaluator to specify what is to be measured based on the purpose, task to perform and performance value. For instance, effectiveness and efficiency definitely adds to the productivity. With increasing level of effectiveness, there is improvement in not only decision making but also the quality of services, programs or projects. Profitability is a function of increased productivity and efficiency, and profitability and productivity are typical concepts of efficiency. This actually is a farm level concept. From a farmer to a great administrator, the concept is that profit can be gained only when productivity and efficiency are at their best.

2. Literature review
Performance measures can be grouped into two basic types:

- Those that relate to results (outputs or outcomes such as competitiveness or financial performance) and,
- Those that focus on the determinants of the results (inputs such as quality, flexibility, resource utilization, and innovation.

A performance measurement system is significant for achieving accountability and results. It explains on a regular basis, the extent of output, results (outcomes), and efficiency of services, products, or programs as said by Spais, 2005. There are always benefits and consequences. To maximize benefits and minimize consequences, regular but fundamental measurements are essential. Those fundamental measurements are input, output, cost, revenue, process, and impact. However, these measurements are not as useful when used alone. They have minimal or no meaning to the organization if they are not related to critical performance and outcome measures such as resource productivity, management efficiency, and team effectiveness. Profitability, returns on investment of performance-based programs, and cost benefit of training interventions have to be measured for accountability. Businesses, establishments, and organizations should make appropriate decisions to measure their critical performance. They should produce good results to match their standards and those results should be against all benchmarks to compete and be successful. Moreover, all sorts of micro, macro, and mega projects and programs apply performance measures to establish successes, outcome, capacities, and liability. Performance measurements are adopted by all sorts of organizations: public or private, developed or developing, industrial or service and profit or nonprofit.

Performance-based measurement helps to evaluate and analyze critical areas of human and organizational performances. These measurements enable practitioners to handle and improve services, decide the accurate value of product and projects, balance satisfaction and turnover, and create cost-effectiveness (van Aken, Letens, Coleman, Farris, & van Goubergen, 2005; Marr & Neely, 2004; Tangen, 2004). Performance measurement suitably improves and justifies investments and actions. It also establishes feasible alliances and universal competitiveness. It is essential for decision making, running out project time lines, and estimating effects of projects and programs, be it tangible or intangible results. Regular measurement of performances in various ways improves any decision making skills and also helps to maintain certain focus. (Kennerly and Neely (2003) and Neely (1999)) have emphasized a lack of adequate management for practitioners on how to evaluate, manage, and revise performance measurement systems over time. Tangen (2004) suggests that practical and consequential measurements to fulfill the unique needs of practitioners. All management departments, divisions, teams, and units within an organization need not trade one strategy for another when they work in collaboration. They have to collaborate to determine what, why, how, and when to measure for maximum effect. The six performance based measurements and their potential impacts are presented in as simple and practical manner as possible in this seminar paper for human performance technology (HPT) practitioners and organizations. The six performance based measurements are effectiveness, efficiency, profitability, productivity, return on investment, and benefit-cost ratio.

Performance is a vital theme in most branches of management, together with strategic management. It is of curiosity for research to both academic scholars and practicing managers. While prescriptions like one by Nash,1983, for improving and managing organizational performance are extensively available, the academic sector has been primarily focused on discussions and debates about issues of terminology, levels of analysis (i.e., individual, work-unit, or organization as a whole), and conceptual bases for assessment of performance (Ford & Schellenberg, 1982).

Performance measurement in the practical and theoretical parts has attracted growing consideration in recent years. The development of current knowledge like organizational theory, operation and production management, strategic management and finance, is not only limited to boundaries of management literature. Since, several fields have studied in isolation; the results vary and are fragmented. Performance measurement requires data collection, analysis and reporting, for simple or complex jobs.

For data collection, only the required amount of data should be collected since, the less information may be inadequate and larger data may result in data overload and wastage of time. Error determination, risk factors, and limitations of indicators are vital for precision and dependability of the measurements. Organizational performance can be measured in the approaches that follow:

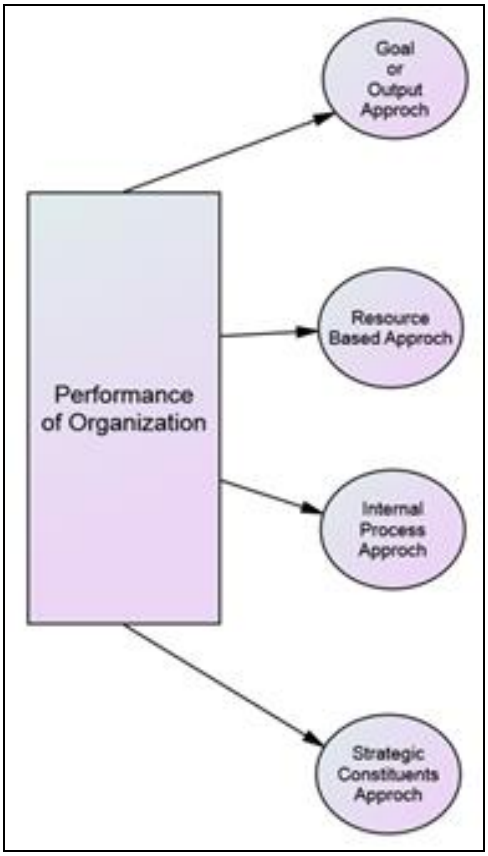

Fig 1: Four Approaches of organizational performance/ Effectiveness measurement (Richard, 2013).

Organizational effectiveness is a social assembly; it is produced and defined by either an individual or a group of individuals. In this research seminar, author would like to focus on goals and outputs of performance based approach. The performance based approach is analyzed thoroughly in the following literature section.

Outcome-based measurements and its indicators offer a vivid picture of the performance of an organization. Actual results, output, or effects based on planned or standard output can be explained by effectiveness. Effectiveness basically is a result of doing the right thing versus doing the thing right. Effectiveness procedures apply to performance of leadership, management, services, customer retention, product quality and decision making. It is the skill to define targeted goals that go parallel with missions of the organization, the amount of stakeholder's dedication and alliance to reach a common purpose. It also deals with how well and timely services and products are made accessible and affordable at the right time at the right place.

The power of effectiveness is generally measured as the ratio of actual output over planned output. It is expressed as:

Effectiveness= Actual output / planned or expected output

Moving on to efficiency, it is quantitative and measures improved or increased services and products generated without changing the inputs. In contrast to effectiveness, where the thing is done right instead of doing the right thing, it is one of the organization's critical performance measurements and involves selecting the appropriate inputs, as said by Mester in 2003. Efficiency can be used to establish best practices and costs in association with practices or operations. It is projected, among others, to determine the true cost of products and services along with customers' sensitivity to any changes in price.

Silva and Stefanou have reported in 2007, "Long-run efficiency measures indicate the relative efficiency of both variable and dynamic factors while short-run measures of efficiency indicate whether variable inputs are employed efficiently in the production process".

Usually, efficiency can be calculated as the ratio of amount of work output or operation (generally energy, time, or money) over amount of work input or operation. It is expressed as a percentage, ratio, or fraction:

Efficiency (%) = Amount of work output / amount of work input x 100

Efficiency can be applied to either long-term or short-term goals. Short-term measures point to the employment of variable factors, whilst long-term measures indicate the relative efficiency of both variable inputs and investment in quasi-fixed factors.

Next author shall describe about profitability. Profitability can be explained as the measurement of quantitative differences between revenue obtained from an output and the costs associated with the use of inputs in producing that output. Revenue on one hand is estimated by multiplying the price at which the goods or services are sold with the number of units sold. While, cost is calculated by multiplying the price at which the inputs are purchased.

Profitability measurement helps in management and balancing satisfaction, cost effectiveness, and efficiency. Profitability determines achieving balance in profit by factors such as employee salaries and inducements, customer retention, and errors in supply.

Profitability is estimated as total earnings less total expenses or potential total earnings less potential total expenses. It is given by:

Profitability =Total earnings or revenue – Total expenses or costs

Similarly, marginal profit is estimated as a ratio of the net income by sales or earnings. Profit is optimized at a point where the marginal cost is equal to the marginal revenue (MC = MR). It measures the amount that is retained from every dollar earned. Gross margin is also one of the measurement parameter of profitability.

Likewise, productivity can be defined as a quantitative measure of output and input used to produce an output. Saari in 2006, has defined productivity as "a concept in close relation to profitability, economic growth, efficiency, surplus value, quality, performance, partial productivity, and need." It can be measured as total productivity, considering all resources or partial productivity, whilst output is measured against specific selected units of resource or input factor like in labor productivity or capital productivity. Usually productivity measurement is used to find out and allot either human or nonhuman resources. Productivity can be used to detect performance, reward systems and organizational effectiveness and to compare between staff or employee performances. It can be used to organize sectors by function or product, determine relative benefits of different and varied resources, or compare with any competitors. This measurement also considers the value of output and inputs, which distinguishes it from allocative efficiency. Usually, the total factor productivity is expressed as:

Total productivity =Total output / Unit input or total inputs

Generally estimates of the values of input and output are dependent on the base price index since subsequent prices might change over time. This means that the price that is used in approximation of the value today may not match up to the same value tomorrow.

Return on investment (ROI) can be qualitative or quantitative. According to Phillips & Phillips, (2008) and Pershing (2006), it measures the incremental gain or loss (return) from an action, project, or program relative to investment cost of that action, project or program. ROI evaluates and compares the monetary benefits to costs. The higher the ROI percentage, the better the rate of the return on investment of any projects or programs. Nevertheless, Tangen believes that disproportionate use of ROI may cause conflict with strategic objectives and strategic building (2004). It is primarily a financial measure and may not directly be related to qualitative human performance. The goals of ROI include the ability to make a stable investment decision or validate the usefulness of investment action. It also helps to deal with human capital or resources efficiently. As a stand-alone measure, it does not however, help to improve performance.

ROI is expressed as a percentage:

ROI (%) = (Investment gains – Investment cost) / Investment cost x 100

Polonsky and Grau in 2008 have rightly reported that return on investment has also been applied in estimating social benefits and impact on charitable organizations. Not only this, Phillips & Phillips, 2008 and Burkett, 2008 have added that ROI has also been used to quantify the value in different companies and organizations. Polonsky and Grau (2008) report that social value could provide critical information to help in decision making and developing internal benchmarks to improve social performance in nonprofit charitable organizations. In a comprehensive case study to measure the ROI of a program in a global company, Burkett (2008) reports a link between improved productivity and labor efficiency. Both tangible results, such as increased operational capacity, and intangible results, such as improved clarity of priorities, roles, and responsibilities of managers, were reported in this study.

Moving on to benefit-cost ratio (BCR), or cost-benefit ratio, it evaluates the need to execute a course of action. This measure allows the evaluator to put a quantitative value on tangible such as physical as well as intangible such as social costs and benefits of an action. The goal is to decide whether to board on a project or pursue a course of action. BCR lets the practitioner to determine project's worth to make positive and worthy changes or implementation of decisions. It helps to find out project time lines and payback periods and to approximate physical and social or environmental effects of the project. It is a universal tool for determining costs and benefits of planned change.

BCR is estimated as:

Benefit-cost ratio =Value of projected benefits / Value of associated costs

The context and precision of the measurement are vital elements for translating the results into the desired effects. Van Aken *et al.* (2005) argue that a top-down control performance model ignores organizational realities when it uses a strategic management system without addressing the key contextual external environment.

The Performance measurement of management have been developed as a triad of three basic measures, from which a set of simple ratios provide information on how well different aspects of management are functioning. The three ratios are:

1. ***Actuality*** (how a process or system actually performed - the traditional form of measure)
2. ***Capability*** (what the process or system is capable of delivering)
3. ***Potentiality*** (what the process or system could be capable of delivering if management exercised realistic and achievable change options)

These three indices are then compared giving three ratios:

1. **Ratio 1:** Operational Performance (Actuality divided by Capability),
2. **Ratio 2:** Latency (Capability divided by Potentiality)
3. **Ratios 3:** Organizational Performance (Operational Performance divided by Latency).

Drucker in 1995 has reported that management theory and practice have long established a link between effective performance measures and effective management. The effectiveness of given performance measure depends on the way it will be used. For performance measures to have proper meaning and provide useful information, it is very essential to make comparisons. The comparisons may evaluate progress in achieving given goals or targets, assess trends in performance over time, or weigh the performance of one organization against another. (Poister, 2003). Performance measures used as a management instrument need to be widened to include input and process measures. One approach is to use an array or scorecard composed of numerous measures.

The Balanced Scorecard is one such approach for assessment of an organization and its programs from four different dimensions: customer, employee, process, and finance. The scorecard builds a holistic model of the strategy that allows all employees to see how they contribute to organizational success focuses change efforts. If the right objectives and measures are identified, successful implementation will likely occur.

Kaplan and Norton, 1996, ICAO Annex 19 defines **safety** as 'the state in which risks associated with aviation activities, related to, or in direct support of the operation of aircraft, are reduced and controlled to an acceptable level' and **safety performance** as 'a service provider's safety achievement as defined by its safety performance targets and safety performance indicators'. These definitions prove to be good indicators of the convolution related to measurement of safety performance. Effective safety performance measurement will support the identification of opportunities for enhancement not just related to safety, but also to efficiency and capacity.

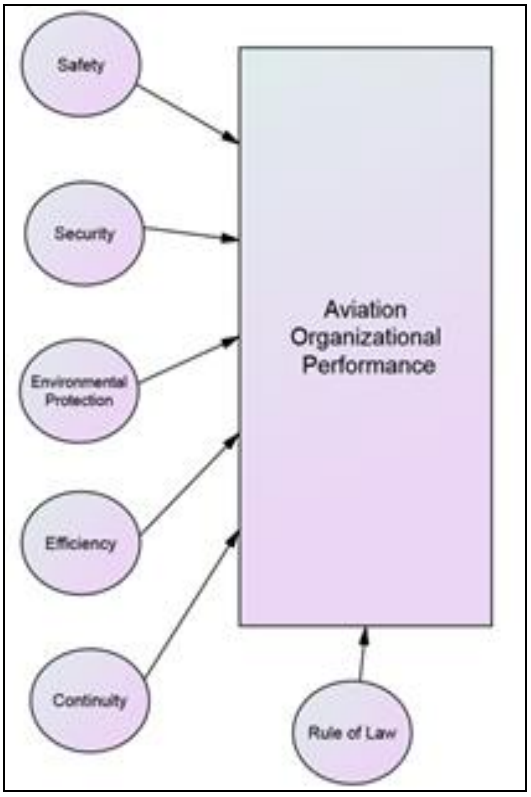

Fig 2: Performance measurement of Aviation Industries as per ICAO Framework.

Measurement of safety performance is not the only aim of this seminar; therefore, following theoretical frame work can be used for the analysis of aviation organizations in Nepal. As per Richard L. Daft (2013), Organizational output goal can be measured by following indicators:

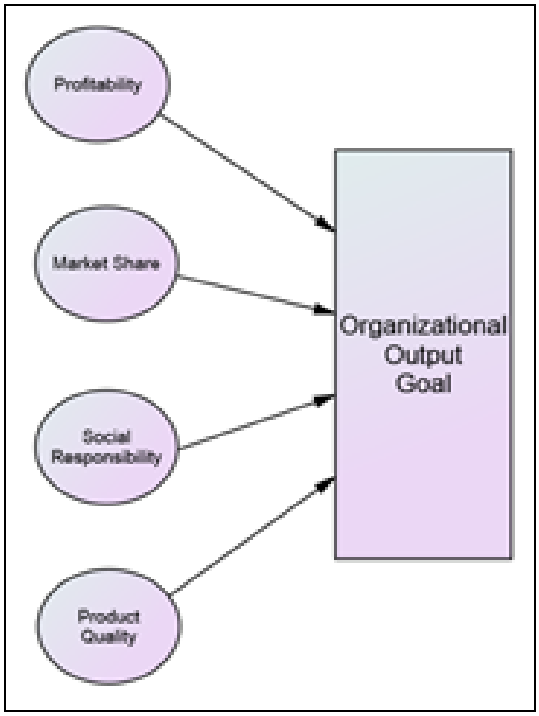

Fig 3: Performance measurement of Organization as per Goal / Output Approach (R Daft, 2013).

From the above literature review the theoretical frame work for this research seminar can be shown as below:

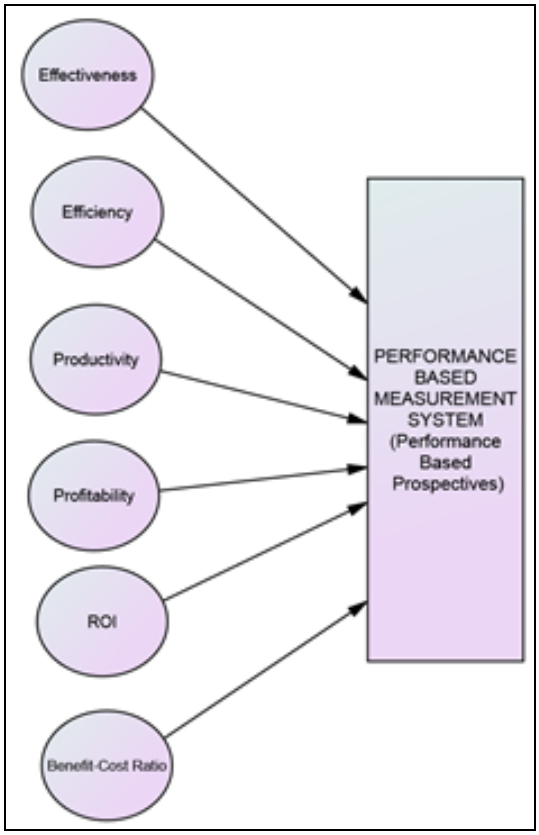

Fig 4: Theoretical framework of Performance Measurement in Aviation Organization.

3. Methods

For literature review on Organizational Performance Based Measurement, thorough study has been done and for better understanding, mini pilot research was also done on theoretical framework. Both primary and secondary data were used for this study.

Primary data was collected from the field with the help of interview, case study method, and questionnaire method. The nature of the data collected and analyzed were quantitative.

Secondary information (data) were collected from various Books, Magazines, News-papers Reports, Journals, Published and unpublished research literatures etc. All ten airlines were chosen for Data collection. SPSS and STATA statistical were used as the analyzing tools for this mini research. This mini research is actually useful for better understanding of performance based measurement system.

4. Result

The following result is based on data collected from the airlines, personal interview of the concerned finance officers and employees of the respective airlines. Regulatory body also provided information on their tax and revenue they collected from the airline's operations. Number of employees and aircraft fleets also compared while calculating the efficiency and effectiveness of the airlines.

Table 1

S. No.	Name of the Airlines	Effectiveness Out of 1	Efficiency 100%	Productivity Out of 1	Profitability (Gross Margin) %	ROI %	Benefit Cost Ratio Out of 10
1	Airline1	0.50	50%	0.60	5%	13%	7
2	Airline2	0.80	80%	0.85	20%	25%	6
3	Airline3	0.70	70%	0.75	10%	20%	5
4	Airline4	0.80	80%	0.75	17%	30%	4
5	Airline5	0.75	75%	0.80	10%	15%	4
6	Airline6	0.70	70%	0.75	10%	12%	4
7	Airline7	0.60	60%	0.70	8%	10%	3
8	Airline8	0.65	65%	0.70	12%	10%	4
9	Airline9	0.60	60%	0.65	- 5%	- 5%	1
10	Airline10	0.55	55%	0.60	-5%	-5%	1

Above result shows that airlin2 is better in terms of performance, except on basis of cost benefit ratio (CBR). CBR of airline1 is better than airline 2

In helicopter market Airline 4 seems to be better than any other helicopter company. However, performance of the airlines in total is not satisfactory at all in Nepal. Performances in following indicators were measured in 10 different airlines as below:

Table 2

S. No.	Airlines	Market Share in Domestic Market %	Social Responsibility Out of 10	Product Quality Out of 10
1	Airlines1	8%	7	6
2	Airlines2	16%	5	7
3	Airlines3	14%	4	6
4	Airlines4	10%	3	7
5	Airlines5	8%	3	6
6	Airlines6	6%	3	6
7	Airlines7	4%	2	6
8	Airlines8	6%	3	6
9	Airlines9	4%	2	5
10	Airlines10	4%	2	5
11	Other Airlines	20%	-	-

This Performance measurement of Organization shown in the table 2 is as per Goal / Output Approach (R Daft, 2013).

5. Discussion

The potential effects of efficiency measures are improved practices, reduced errors or minimized waste and costs, and time saving. Measuring efficiency helps organizations to deliver best-quality services to customers and makes sure that delivery of services or products at minimum possible cost. For instance, Rosko, Mutter, and Maryland (2008) suggest that a direct measure of hospital inadequacy helps to clarify the impact of environmental factors on important dimensions of hospital performance, such as eliminating medical errors and unnecessary medical procedures.

The potential effects of profitability consist of improved financial management and transactions.

Making profit means extension and better practices. Maximizing profits leads to enhanced employee salaries, incentives, and general remunerations. It is an indicator for increased return on net worth and fairness of stakeholders.

Increased productivity means better contents and reward systems, enhanced staff performance levels, and improved control systems. It implies increased functionality, accountability, global competitiveness, and organizational production. Productivity tracks worker effectiveness and indicates how efficiently inputs and resources are used.

Pritchard, Harrell, Diaz Granados, and Guzman in 2008 conducted a meta-analysis a using productivity measurement and enhancement system (ProMES) intervention in organizations. The ProMES is an intervention system that measures a set of defined objectives and quantifiable productivity indicators and provides feedback for improvement. It was found that productivity improvements were large when interventions were applied. These reports should be relatable. They reported that work lives and common productivity can be enhanced when these measurements are related to the job, organizational practices and management supports.

Potential gains from ROI measures are improved investment and financial decision making. It authorizes many decision-making functions such as skills and training, human resource selection, and capital development. ROI enhances business investment judgment and self-justification. However, as a single calculation, it does not provide approach into future business performance or does not define how to improve business results. It does not analyze or measure risk factors.

Benefit-cost ratio improves investment and financial decision making, as well as change decisions and functions. It is used to evaluate actual costs and profit such as development and execution of a new system, project, or training. BCR is based on expected estimates during the planning and analysis phases. It could be used to increase savings, reduce the need to employ more workers to carry out the same job, or avoid needless training costs. In a social circumstance, it could be used to qualitatively develop response to customer demands and make improved decisions in community service.

Result shown in table 1 and table 2 are not so satisfactory. Few airlines seem to be average and most of them need to improve in these indicators. Improving these indicators help to improve their overall performance. Buddha Airline has better domestic market shares compared to others airlines. From these above results, we can infer that effectiveness measures airlines management. It can improve decision making and put employees under control of their actions and performances. This measurement also improves self-confidence and to gain achievements, including every workday practice and experiences when desired results are accomplished. Effectiveness is an indicator of improved value of the organization's program, project, or product. It expresses general success and relates directly to the actual output against expected output, such as the general performances of the four vital stakeholders: employees, customers, suppliers, and share-holders.

6. Implications

It improves the end result by minimizing process cost and enhancing productivity and mission effectiveness. A performance measurement system such as the Balanced Scorecard lets an agency to line up its strategic actions to the strategic plan. It allows, often for the first time, real employment and execution of the strategy on a continuous basis. With it, an organization can acquire feedback needed to conduct the planning efforts. Without it, an organization is in pitch darkness. Measurement of process efficiency provides a rational basis to select the business process enhancements to begin with. It lets managers to recognize best performances in an organization and inflate their practice to another place. The visibility given by a measurement system supports better and more rapid budget decisions and direct processes in the organization. This means that it can minimize risk. Visibility provides accountability and incentives based on real data and not anecdotes and subjective judgments. This serves for strengthening and the inspiration that comes from rivalry. It allows standardizing of process performance against other organizations.

Compilation of process cost data for many previous projects lets us to learn on estimation costs more precisely for future projects. In some countries, the Government Performance and Results Act require a strategic plan, and a technique of measuring the performance of strategic schemes.

7. Limitation and Future Research Direction

Performance measurement needs data collection, analysis, and reporting for both straightforward and convoluted fixes. Errors of replication in costs and overestimations must be particularly focused. Costs must be precise and confirmable for instance, mutual costs and expenses that are joint between numbers of services or costs linked with free services can result in errors in performance based measurement. Other imprecision could come from resources that aren't accounted, dissociated resources such as divertible human resource from production to service, and improper relations between personal and organizational goals or strategies, which could result in irregularities and impractical measurements. Numerous measures of the identical performance indicators can result from disintegrated recognition and distinguish roles played by stakeholders, suppliers, or other customers.

Risks are potential fractional outcomes or essentials that could result in extra incidence in measurements if they are not condensed or not permitted. For instance, risk factors are failure to recognize, track, or measure the performance of a role or section of clients or miss small projects or costs that could weaken the overall result of a program. Risk factors can be physical, such as when replacements for production are not tracked or when some financial investment is illegal and so cannot be accounted for. Other risk factors are connected with dishonored social costs that are misfunctional or unfocused. For example, in a nonprofit or charitable organization, funds could be diverted for crisis relief and are overlooked.

Performance-based measurements are usually like the 'iceberg phenomenon'. It might seem simple but is more convoluted when gone into depths. Limitations of performance-based measurements contain the incapability to decide causes of failure or mal-performance. Also, effects of doubts and natural phenomena cannot be calculated directly. In addition, motivation, good leadership, decision making, incentives, and other human factors that could potentially manipulate performance cannot be entirely captured or accounted for by these measurements; for instance, crime prevention, illegal drug use, sexual harassment, time spent on private e-mailing and texting, or pilfering on the job. Artley and Stroh's research suggests that performance objectives that are measured and articulated only in numerical quotas do not fix faulty processes. An additional study of the challenges and necessary changes in processes is something that decides the action for enhancing performance and achieving the targeted

outcome.

Performance measurement is complex when various systems, products, and processes are incorporated. The practitioner and evaluator should always be directed by the purpose, extent of measurement, details required, available resources, and time factor. Ease of access of applicable supporting data, associated cost, definable human factors, and viability should direct the decision to measure and execute the results.

Performance measurement is a management system, planned to provide decision makers and management with solid data and information on which to make proper decisions and endlessly enhance performance. Nonetheless, it is not an accurate science nor should it be viewed as such. This is frequently because precise data may not be available to tell everything or that the cost of acquiring more sophisticated information overshadows the profits such information could provide. Effectual performance measurement systems should lift a "red flag" that something is erroneous; however, the information doesn't always offer the reason.

8. Conclusion

Performance-based measurement is a critical element in achieving management results. Measurement of organization performances can be done by various methods either academic or industrial. Performance based perspective is the extensively used indicators of performances and effectiveness. In this research paper, author has done thorough literature review on the organizational performance measurement. Likewise, several primary and secondary data have been collected from Nepali Airline industry basing this mini-research on the six different indicators. The outcome and data of the research have been tabulated in the result section. These performance based perspective add not only to the Aviation industry but also to any other organizational firm.

Performance measures should be authorized through team procedures as a means to augment usability and authority. Teamwork is fundamental for effective submission, management, and alignment of objectives, strategies, and results. Team association is necessary to work within timetable and preserve a standard of performance. It makes sure buy-in and possession and avoids conflicts with other performance objectives and results. Teamwork is necessary for shaping levels of success and the motivation for general improvement. There are abundant benefits to any institute that develops and deploys an effectual performance measurement system.

Performances of Nepali Airlines based on performance based measurement system are not satisfactory and there are a lot of rooms for improvement as already stated above. If performance measurement is done on time, and the indicators are checked time and again, there is less chances of failure of the organization as we all are aware of the fact that any fault when identified on time can rectify any problems.

9. References

1. Artley W, Stroh S. The performance based management handbook: Establishing an integrated performance measurement system. Performance-Based Management Special Interest Group. From http://www.orau.gov/pbm/pbmhandbook/Volume%205.pdf, 2008, 2.
2. Burkett H. Measuring ROI in a career development initiative: A global company. In PP Phillips & JJ Phillips Eds., ROI in action casebook. San Francisco: Jossey-Bass/Pfeiffer, 2008.
3. Drucker Peter F. Managing in a Time of Great Change. New York, NY. Penguin Putnam, Inc, 1995.
4. Ford RD, Schellenberg DA. Conceptual issues of linkage in the assessment of organizational performance. Academy of Management Review, 1982; 7:49-58.
5. Hatry H. Performance measurement: Getting results. Washington, DC: Urban Institute Press, 1999.
6. Kaplan Robert S, David P Norton. The Balanced Scorecard. Boston, Mass.: Harvard Business School Press, 1996.
7. Kennerly M, Neely A. Measuring performance in a changing business environment. International Journal of Operations and Production Management. 2003; 23(2):213-229.
8. Levina HM, Belfield C, Muennig P, Rouse C. The public returns to public educational investments in African-American males. Economics of Education Review, 2007; 26:700-709.
9. Marr B, Neely A. Managing and measuring for value: The case of call center performance. Bedfordshire: School of Management and Fijitsu, Cranfield University, 2004.
10. Mester LJ. Applying efficiency measurement techniques to central banks working. The Wharton School, University of Pennsylvania. Retrieved from http://fic.wharton.upenn.edu/fic/papers/03/0325.pdf, 2003, 03-13.
11. Nash M. Managing organizational performance. San Francisco: Jossey-Bass, 1983.
12. Neely A. The performance measurement revolution: Why now and what next? International Journal of Operations and Production Management. 1999; 19(2):205-228.
13. Pershing JA Ed. Handbook of human performance technology 3rd ed. San Francisco: Jossey-Bass, 2006.
14. Phillips PP, Phillips JJ Eds. ROI in action casebook. San Francisco: Jossey-Bass/Pfeiffer, 2008.
15. Poister Theodore H. Measuring Performance in Public and Nonprofit Organizations. San Francisco, Calif.: Jossey-Bass, 2003.
16. Polonsky MJ, Grau SL. Evaluating the social value of charitable organizations: A conceptual foundation. Journal of Macro marketing. 2008; 28(2):130-140.
17. Pritchard RD, Harrell MM, DiazGranados D, Guzman MJ. The productivity measurement and enhancement system: A meta-analysis. Journal of Applied Psychology. 2008; 93(3):540-567.
18. Rosko MD, Mutter RL, Maryland R. Stochastic frontier analysis of hospital inefficiency: A review of empirical issues and assessment of robustness. Medical Care Research and Review. 2008; 65(2):131-166.
19. Saari S. Productivity: Theory and measurement in business. Retrieved June 13, 2008, from http://www.mido.fi/index_tiedostot/Productivity_EPC2006_Saari.pdf, 2006.
20. Silva E, Stefanou SE. Dynamic efficiency measurement: Theory and application. American Journal of Agricultural Economics. 2007; 89(2):398-419.
21. Spais GS. A fundamental formula for leadership

efficiency-Weighting the contribution of Marketing Paideia. Journal of Strategic Marketing. 2005; 13(1):61-77.
22. Tangen S. Professional practice: Performance measurement: From philosophy to practice. International Journal of Productivity and Performance Management. 2004; 53(8):726-737.
23. Van Aken EM, Letens G, Coleman GD, Farris J, van Goubergen D. Assessing maturity and effectiveness of enterprise performance measurement systems. International Journal of Productivity and Performance Management. 2005; 54(5/6):400-418.