

## Present Performance Measurement Practice of Mongolian Companies

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< Abstract >

The countrywide research on the overall assessment of current innovation, productivity and profitability of companies and the study of existing individual performance measurement system for business have concluded that business entities have not seen improvements in their performance due to the failure in defining performance indicators and their measurement system. Therefore it underscores the importance of business performance measurement if it is applied as inclusive including the 7 key performance criteria defined by Sink and Tuttle, their interrelationship and indicators of corporate social responsibility. Moreover, the research on guidelines and methods for the individual performance measurement of business entities in Mongolia concludes that they are not compatible with current needs and requirements. Accordingly, it is required to develop common methodology on the analysis and conduct of conclusion of the criteria for business performance measurement. Upon the availability of such common methodology, it will be feasible for companies to individually design and develop its performance measurement system that is in parallel with the feature of operation.

Key words: Key performance criteria, Performance measurement, Profitability, Productivity

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## I. Introduction

Performance measuring system for business entities intends to establish performance improvements at all level of operation. The good performance measuring system for business entities is aligned with organizational mission, objectives and facilitates efficient decision making for management. Hence it is appropriate for each company to design and develop individual performance measurement system that conforms to its operation. Unless performance measurement criteria are designed as appropriate and accurate, no improvements will be evident in the areas of operation.

The final outcome of business activities are measured with profitability. However, the indication of profitability as high does not necessarily be concluded as excellent. Each profitability growth of business entities cannot ensure the long-term sustainable growth. Due to the growth in quality of work life, efficiency, effectiveness, product/service quality and innovation the productivity increases resulting in profitability growth and a company will operate successfully long term upon the full recognition of corporate social responsibility.

Thus, my research work intends to make analyses on the present performance measurement practice for local companies and provide recommendations on potential improvements.

## II. Literature review

Various methodologies and models for business performance measurement have been available in the global practice. In Mongolia, the issue has been discussed within the areas of theory and methodology, though the practical application is lacking or absent. It is critical that the performance of business entities is frequently measured with profitability indicators while no gap analyses has ever been carried out on the impacts to the profitability.

From the literature review, the following research have been available within the area discussed in Mongolia.

L. Oyuntsetseg “Optimization of management with productivity: Case study in light industry” 1998,

O. Bat-Erdene “Issues of increasing productivity in agricultural sector of Mongolia” 2001,

M. Erdenebayar “Theoretical and methodological issue for input-output analyses” 2004,

L. Batgerel “Methods to increase productivity through the promotion of innovation” 2005.

The novelty of my research work relies on the efforts to optimize business accounting for performance measurement as well as to define the business performance measurement criteria and their interrelationship.

### III. Current performance measurement practice of Mongolian companies

According to the Global Competitiveness Reports released by World Economic Forum, the competitiveness ranking of Mongolia is as follows:

- ✓ Since 2015 Mongolia has been included in the Global Competitiveness Report. In 2015 Mongolia ranked 57th place out of 61 countries.<sup>1)</sup>
- ✓ Mongolia has been involved in the survey by World Economic Forum since 2005 and in 2014-2015 report Mongolia ranked 98th place out of 144 countries in terms of competitiveness.<sup>2)</sup>

It is observed from the reports that our country needs to establish innovation and productivity system and further enhance its contribution to the socio-economic development for increased competitiveness. The innovation development that is presently at relatively poor level leads to the failure of corporate productivity.<sup>3)</sup> The low level of

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1) [http://www.imd.org/wcc/news-wcy-ranking/IMD World Competitiveness Rankings 2015](http://www.imd.org/wcc/news-wcy-ranking/IMD%20World%20Competitiveness%20Rankings%202015)

2) World Economic Forum: The Global Competitiveness Report 2014-2015, p13

3) National Innovation Development Program of Mongolia /2008-2015/, p6-8

corporate profit ability and productivity negatively impact the competitiveness of the country.<sup>4)</sup> Moreover, as the low level of corporate productivity becomes the major reason of lagging economic development of the country, it is emphasized to accelerate economic development through establishing efficient productivity system in the Millennium Development Goals Based Comprehensive National Development Strategy Of Mongolia as planned for 2007-2017.

In Mongolia, the productivity indicators for macro-economic statistics are calculated per classification of economic activities by the National Statistics Office including:

- ✓ The total productivity
- ✓ The total factor productivity
- ✓ The labor productivity
- ✓ The fixed capital productivity
- ✓ The main raw material productivity
- ✓ The electricity productivity

The measurement of the productivity indicators comply with the “Method on estimation of productivity indicators with compared price”<sup>5)</sup> adopted by the National Statistics Office. Business entities and organizations apply the “Comprehensive method of financial analyses for business entities and organizations”<sup>6)</sup> in their financial reporting analyses. According to the method, the productivity analyses use the indicators of:

- ✓ Productivity
- ✓ Fixed asset turnover ratio
- ✓ Inventory turnover ratio
- ✓ Co-efficiency for sustainable economic growth

At present no common method is available in the practice except the ones mentioned earlier for both macro and micro level measurement and management in the country.

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4) Mongolian Economic Policy and Competitiveness Research center: Mongolian Competitiveness Report 2013, p31

5) Annex to resolution No. 01/74 dated 2010 of the Chairman of the National Statistics Office of Mongolia

6) Annex to the resolution No. 277 dated 2013 of the Minister of Finance

It could be adequate to measure productivity either at aggregate level or per classification of economic activities as compliant to “Method on estimation of productivity indicators with compared price”. However, it may not be adequate to measure and assess business entity productivity in accordance with “Comprehensive method of financial analyses for business entities and organizations” .

According to the statistics by September 2015, 152248 legal entities were registered in the state registration and by the business types 295 share holding companies, 102,066 limited liability companies, 88 state owned enterprises, 352 locally owned enterprises and remaining businesses had other legal status.

The statistics showed that about 52 percent of the businesses maintained regular activities. By random selection 10 share holding companies and 10 state owned companies that maintained regular operations were selected to identify how these businesses provide performance evaluation. Commonly, the criteria for performance evaluation of these companies were budget fulfillment and profitability.

From the practice, business entities internally apply some indicators of profitability and productivity, yet they are not satisfactory for operational performance measurement. In addition, the survey from business entities reveals that business entities do not consider the impact to the profitability of productivity.

For the local business entities, accounting data is considered as the most accurate, reliable and developed periodically. Business entities set up their chart of accounts and bookkeeping in accordance with the “Chart of accounts for accounting” .<sup>7)</sup> The chart of accounts for business entities are not set up for the estimation of productivity and profitability indicators; eventually extended amount of time is wasted over the collection efforts of information required.

#### **IV. Business performance criteria and their interrelationship**

Appropriate performance measurement is the fundamental building block for business entities to maintain long term sustainable operation. The performance of business entities are measured by 7 critical criteria that include:

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7) Annex II to the resolution No. 249 dated 2014 of the Minister of Finance

1. Profitability
2. Productivity
3. Innovation
4. Quality of work life
5. Quality
6. Efficiency
7. Effectiveness

They are interrelated though they are different concepts.

### **Profitability**

Profitability indicates the company's capacity to generate a profit and profitability indicator ratios include:

1. Profit margin ratios
2. Return on assets and equity

Profit margin ratios indicates the amount of profit out of each tugrig generated by sales income or cost of a particular product or service sold. Return on assets and equity indicates the amount of profit generated out of each asset or equity.

### **Productivity**

Productivity indicates how resources including labor, capital, land, natural wealth, energy, information, management skills, time etc are utilized efficiently. Productivity is defined as a measurement of output per unit of input. Output is measured with the number of products and services produced or provided, production cost and added value. Input is measured with labor, capital and other inputs.

### **Innovation**

Innovation is a complex activity that the final results of scientific research are launched as final products into a market, production and service.

### **Quality of work life**

If employees feel enthusiastic at work place, the satisfaction from work life rates as

high. The factors that affect quality of work life include the work load, working environment (material supply, colleague formation), management system as well as the salary securing individual life.

### **Quality**

Quality is ensured when a product or service fully complies with requirements.

### **Efficiency**

Efficiency indicators measure how various resources such as labor, capital, time, energy, heat etc are maintained at minimum level for production. Efficiency can be increased through decreasing waste, rejection and outflow of capital. Full allocative efficiency prevails when the input-output combination is cost-minimising and/or profit-maximising. Effectiveness and efficiency are alike, yet differ in depth.

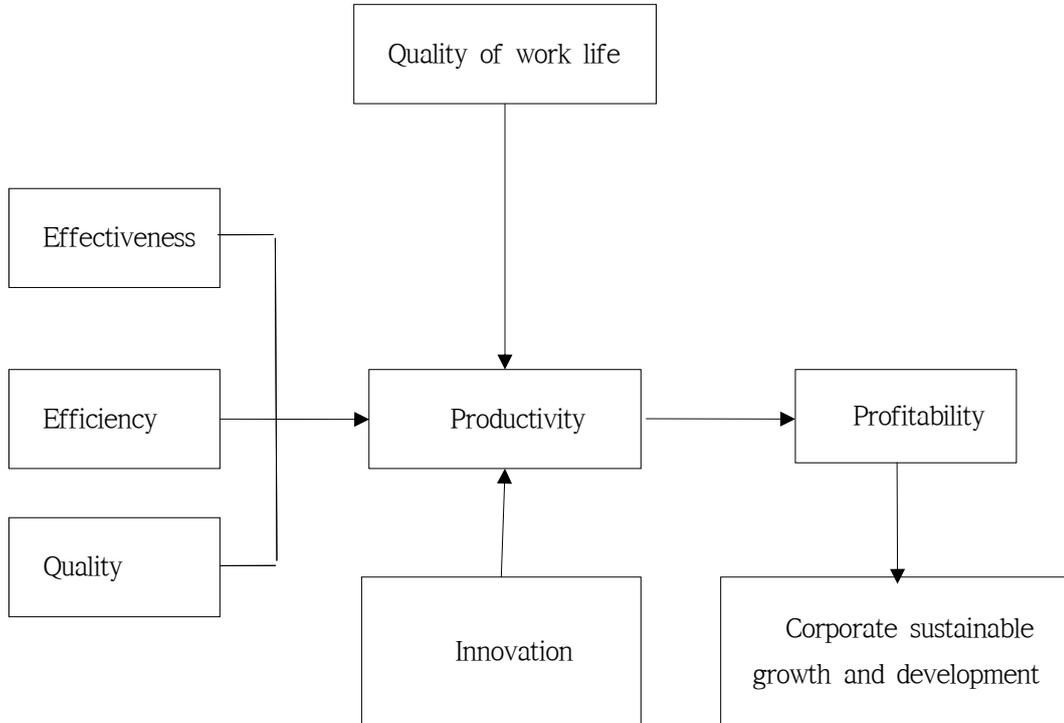
Efficiency and effectiveness are similar concepts, though they differ significantly. Operation is concerned for the purposes of efficiency while performance results are important for effectiveness.

### **Effectiveness**

Effectiveness does not refer to what is required for production, but the quality performance. It depends upon how target objectives are achieved. For instance, every company intends to increase profitability, yet some companies decides on market expansion through decreasing profitability for short term. In this case the effectiveness is measured with market expansion not with increases on profitability. Efficiency is measured with effective output as compared against expected output.

Nowadays the Sink and Tuttle model developed in 1989 have been prevailing in the practice. The model includes 7 criteria (quality of work life, quality, efficiency, effectiveness, productivity, profitability and innovation) and their interrelationship. Out of these criteria, profitability of a company directly depends on productivity while the rest impact through productivity.

Fig 1: Interrelationship among Performance Criteria



Source: Adapted from Sink and Tuttle (1989)

The improvements of productivity as linked with customer needs enable the sales revenue through productivity. In other words, the products unsold do not generate profit. Each profitability growth cannot ensure long term sustainable growth. When efficiency, effectiveness, quality, quality of work life and innovation see sustainable increases, the sustainable productivity growth can be evident. In case the sustainable productivity growth impact the profitability increase, profitability growth can ensure the long term sustainable growth.

The interrelationship of productivity and profitability is demonstrated in the table:

&lt;Table 1&gt; The interrelationship of productivity and profitability

Status	Level of productivity	Level of profitability	Opinion by financial expert	Management decision making for further actions
1	high	high	Corporate financial status as reliable	Maintain the productivity level or continued improvements
2	low	high	High profitability does not maintain for long term	Increase productivity
3***	high	low	Corporate soon feels losses	Increase profitability through improvements of market analyses, stimulus, pricing policy and penetration into new market
4	low	low	Pull up operation /bankruptcy/	Increase both productivity and profitability

\*\*\*- Low profitability regardless of higher level of productivity could be related to the market saturation, high pricing of a product or product incompliance with market needs and requirements.

## V. Conclusion

It is implied from the current practice that no guideline or method is available for comprehensive analyses and conclusion of opinion on business entities. Due to the prevailing practice of performance measuring with profitability, no conduct of evaluation has been evident of whether profitability growth drives long term sustainable growth or not. Business entities fail to calculate the productivity impact to the profitability throughout their performance analyses.

Since the performance measurement of companies are not appropriate, no improvements have yet been felt. Eventually the corporate productivity and profitability are maintained at low level resulting in lagged ranking of competitiveness for the country. Therefore, commitments are required to design and develop comprehensive methodology for performance analyses and conduct of conclusion of business entities. In developing such method, it is highly recommendable to include the issues of how to

coordinate accounting, the criteria for performance measurement system and interrelationship based on which performance measurement for business entities could be advanced as prompt and efficient.

The criteria for performance measurement may be incorporated as comprehensive including the criteria adapted from Sink and Tuttle model, their interrelationship and other criteria for measuring performance of corporate social responsibilities. In this circumstance, companies may tailor and develop individual performance measurement system compatible with own operation features.

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