

ANALYSIS OF THE IMPACT OF MAN POWER PRODUCTIVITY TO SALES PT. 3M INDONESIA

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ABSTRACT

Setiap perusahaan memiliki harapan yang tinggi terhadap produktivitas karyawan, yang mampu meningkatkan penjualan.

Produktivitas yang tinggi selalu identik dengan efisiensi yang tinggi. Dan pada akhirnya akan mampu meningkatkan keuntungan perusahaan.

Untuk menunjang produktivitas karyawan hal yang perlu dilakukan perusahaan adalah dengan memperbaiki kondisi lingkungan kerja dan sarana pendukung terkait.

Dalam penelitian ini digunakan metode uji validitas dan korelasi (r) dengan sampel data produktivitas tenaga kerja sebagai variable independen dan penjualan sebagai variable dependen dari tahun 2011 sampai 2015

Berdasarkan dari data analisis tersebut di peroleh t hitung > t tabel , maka H_0 di tolak dan H_1 dapat di terima artinya ada pengaruh produktivitas tenaga kerja terhadap penjualan, koefesien detreminasi (K_d) produktivitas tenaga kerja 72,25% yang mempengaruhi penjualan dan 27,75% dipengaruhi oleh factor lain.

Keyword: *man power, competitiveness, productivity*

INTRODUCTION

High productivity of man power becomes a goal or target to be achieved by management of company. Many management of company thinks that man power is an asset of the company. Attention can be given by giving a reward for those who have a good prestige to motivate them. Good example from supervisors, managers is needed in an organization to motivate their subordinates to be optimistic in their work. It is not easy to keep the motivation and spirit, it needs a *constructive approach*. The approach can be in the form of *meeting**evaluation of work to know the constrains and problems faced in routine job that cause the failure of the targeted goal.

Lack of information obtained by the employees about the condition, work environment, supporting facilities or an inappropriate equipment can be a constrain to achieve the target of the company.

From the description above the writer identifies some problems faced by either the employees or the company.

1. Why is the productivity low?
2. What should the management do to make the sales increasing?
3. Have the employees worked according to the stated standard?

The success and failure of the company is not only determined by sales and marketing division. All components in the company must be integrated and has equal responsibility along with their position and function. If there is a failure, the result must be evaluated and it becomes a measurement to step foreword and make a better future.

Purpose and Benefits of Research

The purpose that wants to be achieved is to know the followings:

- Level of productivity of man power at PT. 3 M Indonesia in 2010 – 2015
- Level of sales at PT 3 M Indonesia 2010 - 2015
- The impact of productivity of man power to the sales of PT. 3M

- Benefits of Research to the writer
- To deepen the analysis and scope which are more realistic and rational based on the data of research.
- Benefits from the company
- From the result of research it can be the base to make a decision to add or to minimize the employees.

Limitation of problem

Because of the time is limited, the writer limits the issue on productivity of man power, in this case the man power is the whole manpower in the company. Whereas, the sales in this context is the value or result of sales. So in this research the writer limits on “Analysis of the impact of man power productivity to sales at PT. 3M Indonesia”

Hypotheses

In this research the writer makes a hypotheses by temporary statement that “If the productivity of man power is high, the sales is increasing”.

Methods of Research

In this paper the writer uses methods as follow;

1. Resource of Data

- The premier data is the data obtained from the resource that becomes a direct object of research.
- Secondary data is the data from the comparison of theory obtained in academic study with the real world of work

2. Method of collecting data

It is done through interview and asking data of employees in 1996 – 2000 to the personnel of the marketing manager of PT. 3M Indonesia to get sales data in 1996 – 2000 for the analysis data of research.

LITERATURE REVIEW

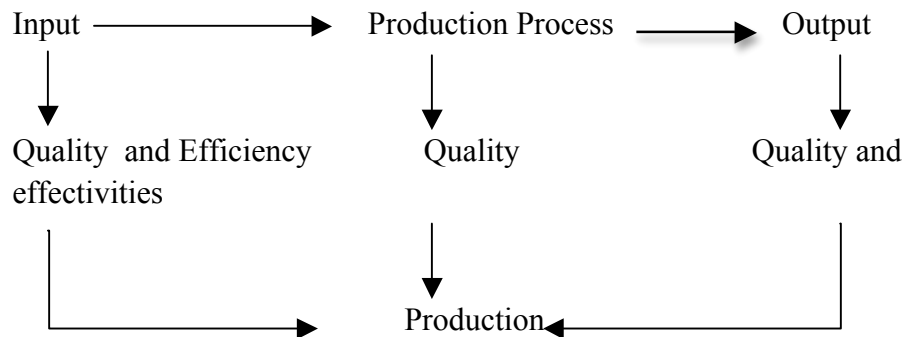
Definition of productivity

Every company wants high productivity of man power, so the company has a competitiveness and efficiency. According to the Board of National Productivity, definition of productivity is mental or attitude of man power that always has a sense that today quality is better than tomorrow quality, and tomorrow must be better than today (Husein Umar, 19). In general productivity is the ratio of the yields (output) to the man power used (input)

$$\text{Productivity} = \frac{\text{The yields gained (output)}}{\text{Human Resource used (input)}}$$

The productivity has two dimensions. They are;

1. Dimension of effectiveness leading to the achievement of maximal yield with a good quality to achieve the stated target.
2. Dimension efficiency that correlates to business to count the ratio between input and reality of how the work is done. Correlation between productivity, effectiveness, efficiency and quality (Husein Umar,2000, 10)



Productivity and Efficiency of Public Administration in MSDM*

In the condition of economic discovery it is impossible to make society's productivity high. Automatically, this productivity becomes public interest so the government dismisses the unproductive institutions.

Measurement of Productivity

The success of a manager is measured by their level of productivity. The measurement of man power productivity according to (Husein Umar, 2000; 156) is as follow:

$$\text{Work productivity} = \frac{\text{Number of sales}}{\text{Number of man power}}$$

There are 3 (three) principles used for the measurement of productivity (Handoko, 1994:212)

1. To state the measurement used.
2. To correlate ratio of production with all work responsibilities.
3. To elevate productivity in each unit that correlates to the target of the company.

Factors that influence the Productivity

Productivity is influenced by five factors (Faustino Cardoso Gomes, 2000; 160)

1. Knowledge
2. Skill
3. Abilities
4. Attitude
5. Behavior

According to Regional Productivity Development, there are six main factors that determine the productivity of human resource. They are;

1. Work ethics
2. Skill level
3. Relation between Supervisor and Subordinates
4. Management of Productivity
5. Efficiency of man power
6. Entrepreneurship

Productivity and Quality

There is a tendency if someone does something in rushing - it has a tendency they ignore the quality. It will not happen if each work has Standard Operational Procedure and clear job instructions. The level of awareness of employees to maintain the quality of products must be built and embodied to the mindset of employees.

Sales

To achieve the target of sales, the company must make a strategy. This needs to be done to know the development of the company from some aspects either by financial or non-financial (Amin WijayaTunggan, Ak, MBA, Scocard, 2000; 4).

The main decision in marketing of one organization is very much needed to determine the decisive marketing strategy. (Kothler, 1997: 28)

1. To decide whether to move abroad.

Many companies decide to sell their products only in domestic market. They don't want to learn the characteristics of market abroad. But when the domestic market is collapsed, many of them bankrupt because they lose the market.

There are four factors that make businessmen interested to expand their business abroad.

1. Their products can be competitive in international market.
2. The basis of customers is wider
3. The chance to get a benefit is greater.
4. To minimize the dependence of one market.

2. To decide which market should be taken.

In general if a company decides to choose foreign market, the portion of market is small. It is reasonable because a new comer in a new market.

One thing needs to be considered is to decide what countries are going to be the target of the products. The interest of market of one country is influenced by some factors; geography, income, population, politic, and the products offered (Kothler, 1997; 30)

3. To decide how to enter a new market

After the decision is made to make a business in one country, the ways to market the products must be chosen.

- Direct or indirect exports
- To give a license
- To open a joint venture
- Direct investment to open plants / factories in that country

4. To decide Marketing Programs

The company which already has had a marketing network in abroad must be able to make some kinds of adjustment with local market.

According to Keegen there are six strategies to adopt and promote the products.

1. Direct expansion is to introduce the products abroad without any changes of shapes or packaging.
2. Product adaptation is to make changing of products to meet the needs of targeted country.
3. Creation of new products is to create a new product to meet the needs of the targeted country
4. Promotion is to promote product through media like; internet, social media, printing media and electronic media.
5. Pricing: most of the handicap for the company that gets a new market abroad is the increasing of expenditure of the product itself. Therefore, the company must decide a good pricing strategy as follows:
 - Fix the same price in all countries
 - Fix the price based on the price of local market.
 - Fix the price based on the cost in each country.

5. Distribution Channel

There are three chains to make a distribution channel (Kothler, 1997; 43) as follows:

- Central office of International marketing i.e. export department to make a distribution channel and efficient marketing mix.
- Bilateral channel i.e. to bring the product to the bordering country via intermediary . For example: distribution agents
- Channel of the targeted foreign country by bringing the products directly to the local customers.

6. To determine Marketing Organization

There are three ways to manage and determine organization of marketing activities.

- Via export department
- International division (by giving a license)
- Global organization that is to treat the world as a global market.

DESCRIPTION OF RESEARCH OBJECT

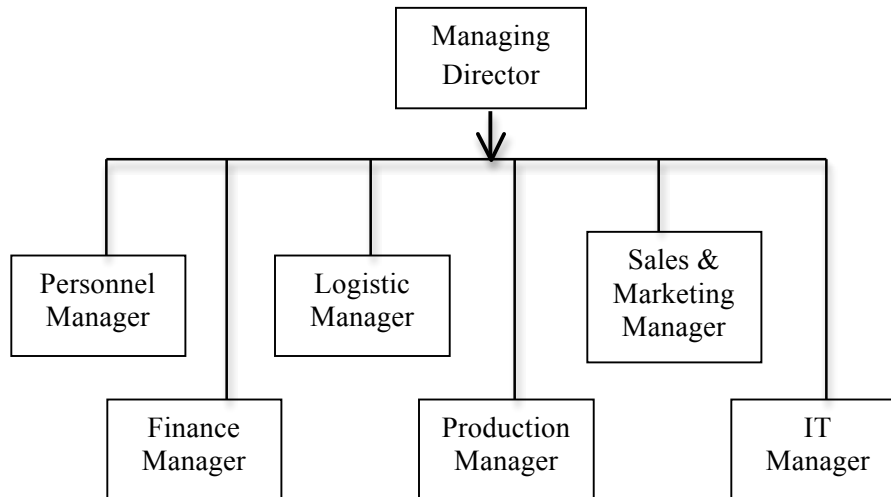
The history of the establishment of 3M Indonesia

3 M stands for Mining Minesota Manufacturing. It is a multi national business which started with mining business and the central office is in St Poul America. The company allocates 20% of their benefits for research and development of 3M. It spreads mostly all over the world for example in Asia there are 3M China, 3MKorea, 3M Taiwan, 3M Malaysia, 3M Japan in Europe they are 3M Germany, 3M Italy, 3M UK, etc.

In 1975 sponsored by an executive from 3M St. Poul and Indonesian Business man, Mr. Soedarpo the owner of Samudera Indonesia Group established 3M Indonesia. The products of 3M are more than 60.000 types and they have marketed to 200 countries.

The employees of 3M in the world in 2001 are 37.389 people. And the products of 3M in Indonesia among others; Care products, Electrical and Telecom products / film fibers, Fire protection, Chemical, Acrylic foam tape, Scoth brite, overhead projector.

Structural Organization of PT 3M Indonesia



Data analysis and Description

Analysis of Employees Productivity at 3M Indonesia.

The following is data of man power productivity at 3M Indonesia from 2011 – 2015.

Productivity of Man Power in 1996 – 2000

Year	Number of man power	Productivity in Billion Rp. (X)	% Growth
2011	438	0.170	-
2012	285	0.161	-5.4%
2013	137	0.416	158.4%
2014	356	0.244	-41.3%
2015	145	0.856	250.8%

Resource : 3M Indonesia

Because data in 2010 was not included into analysis and not found by the company, so special for 2011 the writer doesn't calculate data of 2010 compared with data 2011 so the growth of productivity was not found.

In 2012 the growth of man power productivity is decreasing up to -5.4% compared with that in 2011.

In 2012 the business was decreasing because of world economic crisis especially for ASEAN included Indonesia.

In 2013 the productivity of man power was increasing up to 158% compared with that in 2012. As in 2013 the company made efficiency by making rationality of man power up to 52.1% from the total number of 286 people became 137 people in 2013.

Then in 2014 the productivity of man power was decreasing up to – 41.3% compared with that in 2013. It was due to the certainty of company in 2014 that the business is getting better and well developed so, in 1998 the number of employees were added.

In 2015 the productivity was increasing up to 250.8% compared with that of the previous year. It was caused by minimizing the number of employees up to 211 people or 145.5% from the previous year. In 2015 the company only employed 145 employees.

Analysis of Sales at PT. 3M Indonesia

The following is data of sales at PT. 3M Indonesia from 2011 – 2015

Year	Sales in billion Rp. (Y)	% Growth
2011	44.000.000.000	-
2012	46.000.000.000	4.5 %
2013	57.000.000.000	23.9%
2014	87.000.000.000	52.6%
2015	124.000.000.000	42.6%

From the data above it can be concluded that there is a growth of sales from 2011 – 2015.

In 2011 the sale achieved the was 44 billion, and in 2012 it was increasing up to 46 billion. That means that the increasing number was 4.5% compared with that of the previous year. Whereas, in 2013 the sales was increasing to 23.9% compared with of the previous year. According to the table above there was the highest increase in 2014 i.e. 52.8% compared with that of the previous year. Special for year 2015 we can see the number of sales was the highest between 2011 – 2015.

Analysis of the influence of man power productivity to sales at PT. 3M Indonesia.

Referring to the productivity of man power we can make analysis to know how far the influence of activity of man power to sales.

The following is data that becomes materials for analysis in billion rupiah.

Year	Productivity (X)	Sales (Y)	X ²	Y ²	XY
2011	0.170	44	0.0289	1936	7.48
2012	0.161	46	0.0259	2116	7.41
2013	0.416	57	0.1731	3249	23.71
2014	0.244	87	0.0595	7569	23.71
2015	0.856	124.1	0.7327	15401	106.63
	ΣX=1.847	ΣY=358.1	ΣX ² =1.0201	ΣY ² =30271	ΣXY=166.05

Productivity (X) = in billion rupiah

Sales (Y) = in billion rupiah

Analysis:

$$r = \frac{n\sum xy - \sum x \cdot \sum y}{\sqrt{((n\sum x^2 - (\sum x)^2) ((n\sum y^2 - (\sum y)^2))}$$

$$r = \frac{5(166.03) - (1.847)(358.1)}{\sqrt{(5(1.0201) - (1.847)^2) (5(30.1271) - (358.1)^2)}}$$

$$= \frac{830.15 - 661.4}{\sqrt{(5.1005 - 3.411) (151.355 - 128.236)}}$$

$$= \frac{168}{197.6}$$

r = 0.85

Because the score $r > 0$. That means there is a positive relationship, where the score of variable X is bigger (independent), so that the score of variable Y is bigger (dependent)

Therefore, to check how big the influence percentage between productivity of man power to the sales, we have to count coefficient determination, see the following;

$$\begin{aligned} Kd &= r^2 \times 100\% \\ &= 0.85^2 \times 100\% \\ Kd &= \mathbf{72.25\%} \end{aligned}$$

From the above calculation coefficient determination / Kd is 72.25% that means productivity of man power influence the sales 72.25%. Whereas, 27.75% is influenced by other factors.

To do the examination of that correlation, it needs to be hypothesized, that $H_0 = 0$ or not, $H_1 \neq 0$ or it has a meaning. So the test is done with statistic t as follow;

$$r = \frac{r \sqrt{(n-2)}}{\sqrt{(1-r^2)}}$$

Where, $dk = n-2$

Criteria of test is reject H_0 , if the price is absolute t . from the price t distribution of table. So it is known $N = 5$

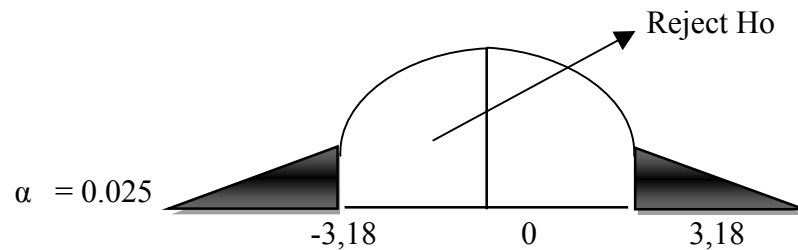
$$\begin{aligned} r &= 0.85 \\ r &= \frac{0.85 \sqrt{(5-2)}}{\sqrt{(1-0.85^2)}} \\ &= \frac{2.6}{0.53} \end{aligned}$$

$$r = \mathbf{4.9}$$

Table of Statistic

$$dk = n - 2 = 3$$

$\alpha = 0.025$ (test of two sides), so score of table t is 3.18



Decision:

Because t is gone, t table, so H_0 is rejected and H_1 is accepted.

That means hypothesis addressed by the writer prove that productivity of man power is high, so it increases sales.

The Handicaps faced by Company

Along with development of company business from year to year, management of business hopes there is awareness from employees to keep the level of work productivity with high motivation.

But the fact in the field is often different, sometimes the management is stuck with routine jobs, it may cause low productivity besides, factor of environment.

So far, the company has made mapping and identify the cases or problems faced by the company. The problems are:

1. There is different perception between management and employees in relation to the target which has been stated as a top management.
2. Factor of subjectivity in giving reward
3. There is the changing of company management in the middle of the way.
4. External factor (especially government policy)

5. Function of control from supervisor is not yet maximal

CONCLUSION AND SUGGESTIONS

Conclusion

There is a big influence of man power productivity achieves 72.25% that means there are other factors that influence sales. From the result of data analysis by management changing of company in making policy for the future is by giving reward to the employees who give good contributions in accordance with the current regulation of company and builds facilities that support the development of employee's productivity.

So the writer makes conclusions as follows;

1. Management of PT. 3M Indonesia increases man power productivity by making an efficiency policy of man power.
2. In running the business, PT. 3M Indonesia doesn't make direct selling to the consumers, but it sells its products through the pointed distributors. It is done to avoid home industry. **
3. PT. 3M Indonesia is a company of foreign investment that runs business of high quality products with high technology.

Suggestion

We should be aware that the domination of company must be a priority.

That means that company is an organization, the goal must be achieved so it gives positive impact to the stakeholder included the employees that exist in the organization that is directly or indirectly involved.

In reference to that matter, the writer gives suggestions to the company.

1. Productivity of employees can be elevated by creating good communication and direction between supervisor and subordinates.

2. Efficiency of man power is not the best way to increase the employee's productivity. It is better to find new markets to increase sales.
3. To elevate strategy of marketing promotion through media; TV but the advertisements on TV is not yet maximal.

REFERENCES

- Gomes, Faustino Cardoso. 2000. *Manajemen Sumber Daya Manusia*. Jakarta: Gramedia Pustaka Utama.
- Handoko. 1999. *Dasar-dasar Manajemen Produksi dan Operasi*. Jakarta: Gramedia Pustaka Utama.
- Kothler. Philip. 1997. *Manajemen Pemasaran*. Jakarta: Gramedia Pustaka Utama.
- Umar, Husein. 2000. *Riset Sumber Daya Manusia*. Jakarta: Gramedia Pustaka Utama.
- Wijaya, Amin. 2000. *Pengukuran Kinerja dengan Balanced Scorecard*. Jakarta: Gramedia Pusaka Utama.