# **Design of Amoeba Management System in Training and Consulting Services Companies: A Case Study in A Training & Consulting Company in Indonesia**

Elisa Kusrini Department of Industrial Engineering, Faculty of Industrial Technology Islamic University of Indonesia Yogyakarta, Indonesia e-mail: elisakusrini@uii.ac.id

Abstract-The purpose of this study is to design the application of amoeba management system (AMS) in one of the training and consulting services companies in Indonesia. Amoeba management system is a management system developed by Kazuo Inamori which is a management system that can increase the productivity of profit/hour through solving the organization into an amoeba division that is responsible independently of its accounting system. This research is conducted by observation and interview about the philosophy, business process, organizational structure and accounting system. The design of amoeba management is done through adjusting the existing philosophy with the philosophy of amoeba, designing organizational structures and designing the accounting system by introducing the transfer price between the amoeba departments. The results of this study is the initial stages of preparation of the application of amoeba management. Subsequent research is to run an amoeba management system to obtain amoeba productivity and to explore strategies to increase amoeba productivity.

#### Keyword: amoeba management, profit per h**ou**r, productivity

#### I. INTRODUCTION

In today's competitive business environment, customer demand has exponentially increased its value in selecting product. A common customer expectation of a product must while he was starting his startup and the business be appealing, good quality and fair price. Therefore, companies must compete to offer the best customer satisfaction and gain profit. By possessing competitive ... advantage, a company can overcome its competitor and sustain the business. One of strategies to obtain competitive advantage is to maintain productivity by increasing revenue and reduce cost without reducing the quality of product or One method to do this is using amoeba services. management system.

Amoeba management system is a management system developed by Kazuo Inamori in a Japanese ceramic fabrication company. An amoeba is composed of small, independently working, highly entrepreneurial units. Amoebas are so independent that they look like separate businesses within a company[1].

The aim of the management system are to establish a market oriented divisional accounting system; develop

Fahri Shidqi Arifsa Department of Industrial Engineering, Faculty of Industrial Technology Islamic University of Indonesia Yogyakarta, Indonesia e-mail: 15522152@students.uii.ac.id

with managerial achieve leaders awareness; and management by all. The management system has been used in many companies around the globe [2]. Many have suggest that the amoeba management system can improve the company's productivity. A study by Reference [2] analyzing Kyocera's growth path showed many evidence demonstrating market expansiveness, increase in dynamic productivity and competitiveness improvement. The Amoeba Management System can be implemented in service industry equally effective as the manufacturing Therefore, this paper focuses on industry. the implementation of amoeba management system in service industry through designing organizational structure and amoeba accounting system. The case study of designing amoeba management in a consulting company in Indonesia is presented.

### II. LITERATURE REVIEW

# A. Amoeba Management

Amoeba management system is a management system developed by Kazuo Inamori in a Japanese ceramic fabrication company called Kyocera. The management system was influenced by the adversities Inamori faced philosophy laying behind it. This effective organizational system was appreciated by managers and researchers due to its advantages including very productive and leading to continuous growth. The implementation of AMS introduced by Kyocera gave the company more than 50 years of consecutive profitability [3]. This system breaks down organizational structure into small groups performing similarly to independent small businesses refer to as amoebas. The term amoeba was coined due to its size, flexibility, self-organized, and self-developing abilities in terms of business changes. Each amoeba consist of 3 to 50 employees with a wide range of competence and authority [4]. The amoeba's leader has the authority to make decision as if they were the owner of the business and responsible for internal coordination and coordination among amoebas [1].

The Amoeba management system is a total management control system, based on a philosophy of management and intimately tied to all systems within the company. A set of clear principles are embedded to the company's organizational culture as the provision of an AMS. These principles are termed the company's philosophy. The philosophy consists of a corporate motto, a management rationale, principles and philosophy. These philosophy underlie the ethical behavior of the employee in the organization.

# B. Implementation of Amoeba Management

There are three major objectives of the AMS namely establishing a market oriented divisional accounting system; developing leaders with managerial awareness; and achieving management by all. The first objective to establish a market oriented divisional accounting system is embodied through a unique accounting system where every amoeba is equipped with an accounting division. As a result, transaction among amoeba exist. To set the transfer price, an activity of negotiation and bargaining is performed corresponding to the market condition and comparable to market prices [1].

Implementing the amoeba management system and the tools to achieve dynamic leadership and cooperation with stakeholders stimulates an organization to enhance the corporate performance and become more competitive in the business environment[5]. The implementation of amoeba management system can support companies in employee's commitment in their path toward operational excellence on various management styles and culture of organization [2].

A research in [3] implementing AMS states that the AMS is very challenging to be adopted in a traditionally organized bureaucratic organization. The most difficult part is to give the small teams far-reaching autonomy and transfer to them fully responsibility for their work. An empirical investigation of AMS was done in three European companies in [2]. The study concludes that AMS is a very useful management methodology which can support companies in employee's commitment during their path towards operational excellence.

The study on steps to implement amoeba system in an organization has been done by several scholars. Reference [7] states that there are four steps to implement amoeba management system to an organization namely establishing relationship among amoeba teams; designing accounting mechanism; designing incentive mechanism; and designing evaluation mechanism. While in [3] described the framework of the implementation of amoeba management system in 5 milestones i.e. comprehensive preparation for implementation of AMS; changing organizational structure; design an accounting system coherent with the amoeba structure; introduction of inner price between amoebas; and transformation of the organizational culture to the AMS values and principles.

Establishing relationship among amoeba revolutionize the traditional model of enterprise organization where employees in different departments need to communicate to each other. In conventional organization model, due to thetraditional cross departmental communication which causes low efficiency. The amoeba management system organizational model consisting many different amoebas or teams, and teams need to communicate to each other. The trading rule inside the team is leaded by the amoeba organization. Therefore the relationship between different departments is no longer traditional but replaced by internal exchanges [7].

# C. AMS Accounting System

Unlike the conventional accounting system that operates on global figures and reports the historical data which is useless for AMS approach [1]. The amoeba accounting system provides information about the total expenses of the amoeba includes all cost to facilities engaged and operations done by an amoebaresulting a wide range of dynamism [6].

The accounting system of amoeba organization introduce the independent accounting mechanism. Every department is responsible for their own profit and loss. There are two types of transaction in the organization, internal and external transaction. Internal transaction refers to the transactions among departments or amoebas. The internal transfer price between amoebas are determined through a process of bargaining and negotiations agreed among amoebas. The amoeba profit are determined by the selling prices however, it cannot be considered as its own profit but also as a profitability of the whole company [2]. While the external trading is the normal operation and sales activities of an enterprise. In order to succeed, the teams are based on a realistic economic conditions, thus each amoeba has a real and timely finance calculation and the inner transfer prices must be realistic [6]. Once all the amoeba units within the enterprise have a profit-oriented business principle, they should pursue maximum sales revenue, reduce cost and constantly increase actual profits, enterprises will naturally achieve high returns [7].

The amoeba profit or also called as the value added is the balance remaining after subtracting the total expenses from net value of production sold to other amoebas [2]. The amoeba profit indicates the hourly efficiency ratioin a unit. This can be compared to the amoebas actual average hourly labor cost and benchmark the units performance. From the hourly efficiency, the company can analyze how they obtain the hourly efficiency and plan for the next target and improve. To monitor the progress a meeting is conducted to evaluate the efficiency performance ratio to the planned target.

In the amoeba structure, every department has their own incentive mechanism. A trading relationship is formed by the functional department with other team of the business unit. The salaries of the functional departments arr linked to the performance of their work. Any department teams have their own incentive mechanism, and for the functional department, form a trading relationship with the team of other business units. The salaries of the functional departments are linked to the performance of their work, at the same time linked to the front-line staff work performance, which can fully motivate the various departments to work hard.

Evaluation mechanism is used to check if the teams has completed the task aligned with the control objectives or performance standards. In the AMS there are no real performance appraisal due to the core objective of the organization to make the enterprise internal business unit staff to better understand their business and focus on the business sector to find and solve problems.

# D. Amoeba Philosophy

Amoeba management is build upon the philosophy "do what is right as human being". The criterion "do what is right as human being" is related to the ethic and moral based on conscience that is fundamentally owned by every human being. A simple example is as taught by parents or teachers such as "dont be greedy, "dont lie", and "be an honest person" [1]. Having this philosophy embedded to the employees nature will create a healthy working environment.Moreover, Employees must have the sense of work to become meaningful. Organization can demonstrate how jobs fit with the organizations broader purpose to encourage people to see their work as meaningful.

Organization that succeed to increase the individuals meaningfulness in the workplace are more likely to attract, retain, and motivate the employee they need to build sustainably for the future and create the kind of workplace where human being can thrive. [8]

The company's philosophy refers to the principles and values that are embedded in the company's corporate culture. The Kyocera's philosophy is printed in a small book called the kyocera philosophy published internally only for the company's employees. This pocket book is given to the employee on the first day of work in the company[6].

# III. RESEARCH METHODOLOGY

This research is conducted through a case study in a consulting company in Indonesia, PT. Expertindo. The steps include identifying the company's philosophy that correspond to amoeba philosophy, designing an organizational structure, and establishing the amoeba accounting system.

The information and data in this research is obtained through observation and interview with the director of PT. Expertindo and their staff. The steps in this research is described as follow.

1. Identify the company profile and business process of PT Expertindo.

- 2. Identifying the alignment of vision, mission, and philosophy of the organization.
- 3. Design amoeba organizational structure.
- 4. Design amoeba accounting system.

### IV. RESULT AND DISCUSSION

This research was conducted by collecting data and interviews with the following results:

1. Identify the company profile and business process of PT Expertindo

PT Expertindo is a training and consulting company that provides training and consulting services for companies, government institutions, educational institutions, nongovernmental organizations or individuals in various fields of Human Resources & Development, Business & Management, Engineering, Oil & Gas, Electricity & Energy, Information Technology, Finance, Law, and others. PT Expertindo's customers come from national, multinational companies, state-owned companies and other organizations with a total of approximately 400 companies. The number of trainees per year reaches an average of 1300 participants with training locations in various major cities in Indonesia

PT Expertindo has 4 types of services offered, namely Public Training, In House Training, Certification, and Consultation. Public Training is a training that is held regularly with the material and schedule that has been arranged, as well as training facilities and instructors that have been prepared. Public Training has a flexible number of participants meeting the demands of agencies/ companies. This training is general and has participants not only from one agency/company. In House Training is a training for companies for various specific needs with material that suits their needs. Unlike the Public Training, In House Training is carried out with time and place that is adjusted to the agency's wishes. This certification program consists of certification exam preparation training and who wish to seek or complete certification requirements. Consulting services at PT. Expertindo provide consultancy services to clients from professionals in certain areas of expertise.

The Internal business process at PT. Expertindo Public Training services can be divided into 10 main operating processes, namely acceptance of client requests, client follow-up, client confirmation, preparation of training venues, receipts, invoices, and tax invoices, instructor and material preparation, training kits preparation and souvenirs, preparation of participant training certificates, training, and training fees.

2. Identifying the alignment of vision, mission, and philosophy of the organization

The vision of PT Expertindo is to become a leading trusted training and consultant institution in Indonesia that

emphasizes quality, professionalism and innovation that is always ready to become partners of various companies. The mission of PT Expertindo is as follows: Organizing training and developing soft skills and skills for human resources to become professional and reliable personnel in their fields, Organizing consultations and development to answer the needs of the company and provide comprehensive solutions that are relevant to the latest developments, Developing networks with various parties to improve the quality and coverage of the services provided [9]. The philosophy that underlies the vision and mission is to work properly and well to improve welfare together for employees and to contribute to the industry. The vision and mission of PT. Expertindo is in accordance with the management philosophy of amoeba, namely "doing the right thing as human being"[1].

3. Design of organizational structure accordance with amoeba management

PT Expertindo's organizational structure is divided into 5 divisions, namely marketing and sales, operating production division, information technology division, R & D division and financial division. In accordance with the amoeba structure, thus five amoeba were formed according to their divisions. The organizational structure divides the division into profit and non-profit divisions as shown in the Figure 1.

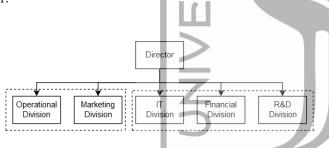


Figure 1 : Amoeba Organizational Structure

production division, while finance and R&D are the supportive divisions and are classified as non-profit division. Each Amoeba is responsible independently of its income and expenses.

### 4. Design Amoeba Accounting System

Amoeba management system divides an organization into small units operating independently using market oriented divisional accounting system. This encourages the development of leadership and gives all employees management awareness and facilitates management by all, a method involving all employees in daily operation of business. As a result of the accounting division system, an internal transaction among amoeba exist. In this research, only the profit-making division accounting management system is designed. The amoeba accounting system design for PT Expertindo is given in Table 2.

Γal	ble	1. A	moeba	a Acco	ounting	System
-----	-----	------	-------	--------	---------	--------

Sales Departm	ent	Production Depa	rtment	
Revenue	A= A1+A2	Revenue	A	
sales public traininig	A1	sales public traininig	A1	
Sales In House Training	A2	Sales In House Training	A2	
Sales Commision	B=22,5%A	Commision payment	в	
Sales revenue	8	Production income	G=A-B	
Marketing Expenses	C=C1+C2++C7	Production Expenses	H=H1+H2+,H12	
Promotional cost (website)	C1	Instuctor fees	H1	
Communication Cost	C2	Co-Instructor fess	H2	
Operational & office supply	C3	Meeting room rental fee	H3	
cost of mobile data	C4	Transportation cost	H4	
Depreciation	CS	Operational & office supply	HS	
Overhead	CG	Communication Cost	HG	
Post delivery fee	C7	Training kits and souvenir	H7	
		Module printing cost	HS	
		Internal purchase	H9	
		Certficate material & printing	H10	
		Depreciation	H11	
		Overhead	H12	
Profit	D= B-C	Profit	I= G-H	
Total working hour	E	Total working hour	J.	
Normal hour	£1	Normal hour	11	
overtime	E2	avertime	J2	
PROFIT/HOUR	F=D/E	PROFIT/HOUR	K- 1/J	

In amoeba accounting an internal transaction between sales marketing and production amoeba occured. In this case, the internal price between sales marketing and production is agreed at 22.5% of the selling price. Thus, the revenue of sales marketing is 22,5% of the selling price. The profit calculation for sales marketing is calculated from the difference in revenue (22.5% of the selling price) minus all costs spent by the marketing department. The profit calculation from the production department is revenue (77.5% of the selling price) minus all costs incurred by the production department. While working hours are calculated from the total working hours of each work, multiplied by working hours per month overtime. Finally, profit/hour can be obtained. Evaluation profit per hour is carried out The profit-making division is the sales marketing and ... periodically to determine the productivity level and required corrective action.

#### V. CONCLUSION

Preparations for the application of amoeba management in the training and consulting services company are carried out in three stages, namely adjusting the organizational philosophy, design of organizational structures (that is separated into profit and non-profit departments) and the amoeba accounting system with transfer prices between amoebas. The suitability of the philosophy makes it easy for management to run the program because the company philosophy is in accordance with the philosophy of amoeba namely "do the right thing as human being". With a new organizational structure each department is an amoeba with responsibility for its productivity. The new accounting system is based on the transfer price with revenue's sales and marketing department, which is the percentage of commission from the selling price of the product/service. Amoeba productivity based on profit hour can be the basis for increasing overall productivity of the company.

## ACKNOWLEDGMENT

The authors would like to acknowledge to PT Expertindo Yogyakarta that has allowed us to conduct research on its public training service.

# REFERENCES [1] Inamori K. (2017) "Amoeba Management. The Dynamic Management System for Rapid Market Response", CRC Press, Boca

- Raton,
  [2] Urban,W and Czerska,J (2016). "Reaching an Entrepreneurial Management System of Amoebas. A Qualitative Insight into The European Experiences". International Society for Manufacturing,
- European Experiences". International Society for Manufacturing, Service and Management Engineering, 8(1), 7-18. doi:10.1515/emj-2016-0001
- [3] Urban, W. (2017). "Amoeba Management System Transformation in

The Light of Organisational Change Literature". *Management and Production Engineering Review*, 8(1), 16-23. doi:10.1515/mper-2017-0002

- [4] Hamada K., Monden Y., Profit management at KyoceraCorporation: the amoeba system in: MondenY., Sakurai M. [Eds.], Japanese Management Accounting- A World Class Approach to Profit Management, Productivity Press, Cambridge, 197–210,1989.
- [5] Michaela, B. (2012)."Bata and Amoeba: Successful Management Systems to Maximize Corporate Performance". Paper presented at the European Conference on Management, Leadership & Governance; Kidmore End.
- [6] Urban, W. (2017)."System of Amoebas as a Remedy for Employee Engagement Deficits - a Conceptual Deliberation". Paper presented at the 7th International Conference on Engineering, Project, and Production Management.

[7] Yang, F, (2018). "The Operation Mechanism of Amoeba's Organizational Model". Open Journal of Business and Management, 6, 462-469.

[8] Bailey, C and Madden, A (2016). "What Makes Work Meaningful-or Meaningless. Managing People".

[9] https://expertindo-training.com/

## Authors' background (This form is only for submitted manuscript for review)

Authors backgrou				
Your Name	Title*	Affiliation	Research Field	Personal website
Elisa Kusrini Doctor		Industrail Engineering	Operational	www.uii.ac.id
		Department, Islamic	management, Supply	
		Indonesian University	chain management	

\*This form helps us to understand your paper better, the form itself will not be published.

\*Title can be chosen from: master student, Phd candidate, assistant professor, lecture, senior lecture, associate professor, full professor

