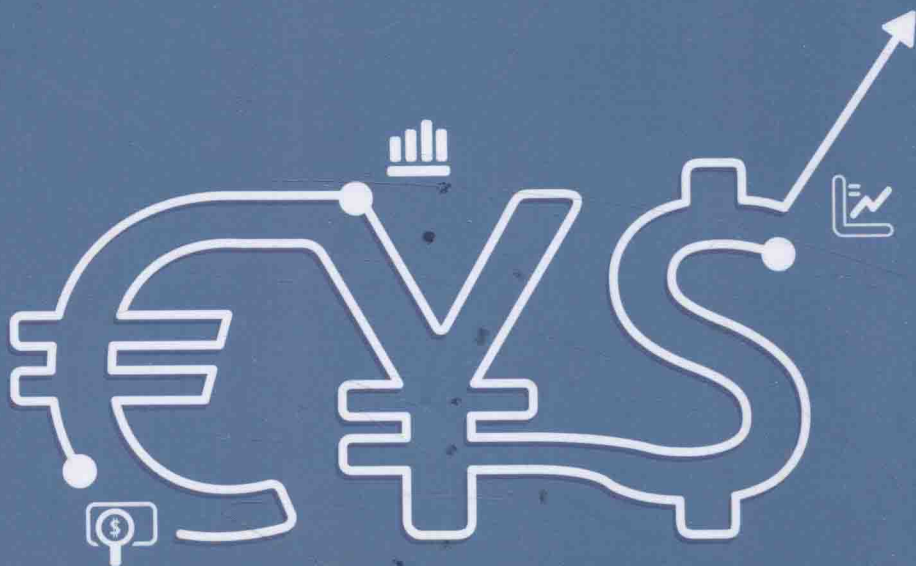


# 基于组织形态学的信息密集型企业 绩效测评

A Multi-level Framework for Assessing Business  
Performance Based on Organisational Morphology

谷 征◎著



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## Preface

In modern business, information is a key factor of production and service. How to measure business performance of an information intensive organization (IIO) while reflecting the functions and features of information becomes a key question. The aim of this research is to develop an approach to model and analyse information based activities in IIOs from the organisational morphology perspective, together with the methodology for measuring IIOs' performance.

The main outcome of this research is the multi-level framework for morphology-based organisational effectiveness assessment. The input-process-output model, data flow diagram method and organisational morphology model construct the three levels of the framework sequentially. Communication effectiveness index and control effectiveness index are derived as performance measurement indicators to assess the marketing effects.

Application and evaluation of the framework are based on the case study at China C University MBA Education Center. An evaluation model is built based on Clark's framework for marketing performance assessment. The results from proposed framework and evaluation model match, which

indicates that the multi-level framework correctly predicted the performance.

The contributions of this research are summarised in three aspects. In the academic aspect, the multi-level framework further developed the organisational morphology analysis in organisational semiotics and made the method applicable for practical use. In the methodological aspect, the multi-level framework for morphology based organisational effectiveness assessment provides an approach to model an IIO and assess its performance based on information based marketing activities. In the practical aspect, the research offer a systematic approach and steps to assess the effectiveness of marketing. Compared to other methods, the proposed multi-level framework has a practical advantage of being able to predict the outcome of marketing activities by monitoring its efforts. Marketing efforts can be assessed in real time and plans can then be adjusted to improve the outcomes.

One of the great joys of completing this book is to look back on the research journey, and enjoy the piece-by-piece progress. The research process can be a lonely and seemingly endless experience. This research could definitely not have been accomplished without support from numerous professors and friends.

First and foremost, I would like to express my gratitude to my supervisors Dr. Keiichi Nakata and Prof. Kecheng Liu in Henley Business School, University of Reading. I first met these two great professors by chance at a work related meeting in Beijing in 2007. Their enormous knowledge and dedicated attitude impressed me tremendously. Thanks to

Dr. Keiichi Nakata, for his constant support, expert guidance, continuous encouragement, invaluable suggestions, understanding and patients for the past six years. Without his help, I would never have finished this thesis. Thanks to Prof. Kecheng Liu, for leading me to this field. His wisdom, effort and patience helped me over many obstacles during the study. I deeply appreciate him and hope we have a chance to collaborate again in the future.

I also would like to express my sincerest appreciation to the employees and students at the China Agricultural University MBA Education Centre. I thank them all for their time and contribution to the development of the survey, administering the questionnaires, and work in data collection. They provided a treasure to this research. Thanks also to Prof. Bill Curtis, whose rigorous editing made this thesis a smooth and pleasant read.

Finally, I owe my sincere thanks to the reviewers of published papers and authors of extensive references. Their critical comments and valuable materials helped me to raise this research to a higher level. Thanks to all the people who have helped me during the research process over the past six years. You all made my dream come true.

Gu Zheng

Reading, UK

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# Chapter 1

## Introduction

An information intensive organisation (IIO) is an organisation in which information is the primary resource utilised, shared, and integrated to normal workday routes to achieve a common vision or goal (Jones, 1994). In an IIO, information plays the key role. Many modern organisations have the characteristics of IIO (Sorensen and Fountas, 2009). According to Ebert (2008), besides the traditional production factors—labour, capital, physical resources and entrepreneurship, information is another key production factor. It is information that links, integrates and unites the above four factors. Therefore, in modern business, information should be treated not only as one of the production factors, but the most crucial one. The primary input and output of an IIO is information. The main task of IIOs is to provide processed and valuable information to their customers. In other words, they offer services based on information. A competitive organisation requires that

information flows in operation are accurate, instant and smooth, to provide better service to customers.

Compared to traditional organisations, an IIO focuses on how to generate information among different people and departments within the organisation and with external organisations. It is the information that integrates the organisation as a whole. Hansen and Jarvelin (2005), Mendelson and Pilliai (1999) discuss the key features of an IIO, including: (1) information as the raw material and the driving force to achieve the organisation's mission and goals; (2) information processing carried out through everyday routines, daily tasks and activities; (3) information sharing carried out to ensure that the operating process is efficient and supports collaborative efforts. The overall operation of IIO is a complex information system.

Thus, the definition of IIO can be updated as follows, “an information intensive organisation (IIO) is an organisation in which value is added by gathering, processing and providing information in normal workday routes to achieve a common vision or goal”. IIOs commonly exist in the modern business.

Marketing of a business is an example of an information system in IIO. The marketing activities in IIO are processes full of information flows. Generally, the marketing processes include: (1) delivering the right information of products or services to customers; (2) gathering and

processing the needs and feedback from customers and market; (3) integrating and exchanging information with internal departments and external business partners. Marketing activities or marketing communications that exist in the above three categories are complicated processes. The main difficulty is how to identify the useful and valuable information from a huge amount of data (Thysen, 2000), and how to avoid the problem of information overload. In other words, the key question is how to ensure that the right information reaches the right holders at the right time for making the right decisions; neither too much nor insufficient. Business performance is based on how much valuable information reaches the users, and adds value to an organisation's output.

How to assess the marketing effect, the effect of information flow in marketing—in an IIO becomes a critical topic. Traditional business performance measurement methods for marketing, such as marketing return on investment, performance measurement matrix, the strategic measurement and reporting technique (SMART) pyramid, the input-process-outcome framework, the balanced scorecard and others each has their own weakness in application to marketing assessment in IIOs (Rauch et al., 2009; Lamberti and Noci, 2010). A new method that focuses on measuring the performance of information flow in marketing is needed.

In this thesis, organisational semiotics is used to assess the marketing performance in an IIO. From the semiotics view, business can be carried out by information (Liu, 2001). Within the organisational semiotics approach,



organisational morphology (OM) is a method that focuses on the organisational functions rather than just the structure. This method studies the morphology of the tasks and functions of an organisation (Stamper et al., 1994; Liu, 2000). Three types of tasks and norms have been identified, substantive, communication and control. Performance of an IIO can be initially assessed qualitatively by the weights of resources consumed by these three types of norms (Liu, 2000). OM is used to measure an organisation's performance based on information based activities.

This study developed the method of OM and derived communication effectiveness index and control effectiveness index based on the fundamental concept of OM to assess marketing effects in IIOs. The multi-level framework proposed in this thesis enabled a practical application of OM method.

## 1.1 Research Focus

The key difference between IIO and normal organisation is the utilization of information. To measure marketing performance in IIOs, traditional methods cannot fully reflect the features of information, especially by focusing on the information flows. Thus, an approach that can assess information based marketing activities in IIO is needed.

This research focuses on modelling information based activities in