



UNIVERSITI PUTRA MALAYSIA

**A CASE STUDY OF TRANSFORMATIVE LEARNING EXPERIENCE
AMONGST MIDDLE MANAGERS**

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**A CASE STUDY OF TRANSFORMATIVE LEARNING EXPERIENCE
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By

NG CHIEW SUM

Thesis Submitted to the Graduate School of Management,

Universiti Putra Malaysia,

in Fulfilment of the Requirement for the Degree of Doctor of Philosophy

February 2008



DEDICATION

I dedicate this thesis to my wife, Sok Heng and my children, Jee Kwan, Pui San and Sing Kwan for their support and encouragement.



Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfilment
of the requirement for the degree of Doctor Philosophy

**A CASE STUDY OF TRANSFORMATIVE LEARNING EXPERIENCE
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February 2008

Chairperson: Associate Professor Dr Jamaliah Abdul Hamid

Faculty: Faculty of Educational Studies

Work organisations in the current economic environment are facing unprecedented high energy costs, accelerated information communication technologies (ICT) and biotechnology changes. However, for most companies returns are increasing, with the application of knowledge that results in minimum utilisation of resources. Middle managers in these organisations are no longer able to manage work processes, market their products or services using the traditional command and control methods. They must reframe their perspectives to conceive new managerial roles based on resolving paradoxes and embracing a more entrepreneurial approach. The corporate managers must not only learn new managerial skills but they must also embark on transformative learning to improve their capabilities. Managers must question assumptions, formulate alternatives and continually reform their processes. The research approach adopted by this study is by using the qualitative case study method. Sampling of research sites and respondents were based on the criteria of access, industry type and the researcher's familiarity with the particular industry. This study adopted an unstructured interview method and twenty-five respondents were interviewed individually. The researcher conducted the interviews personally and the interview results were interpreted using an inductive analysis method.



The main findings revealed that the middle managers' behavioural adaptive capabilities, insights and schemas were the results of their interaction with work situations and their interactions with colleagues, suppliers and customers, and owners. Learning was triggered not by disorienting dilemmas but by gradual accumulation of managerial insights and by the slow evolvement of new schemas spanning their working career. This study established the link between an individuals' transformative learning and their personal career advancements, work experience and external influence. The nature of transformative learning was found to be relational, as well as cognitive-rational. The findings contributed to the field of transformative learning by establishing the use of critical incidents/unstructured interviews in elucidating the transformative learning experiences of middle managers, and by creating dialogic context for managers to communicate their learning experiences. Theoretical contributions of this study included the level of transformative learning, cumulative layering of insights and true tests of transformative learning.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

**SATU KAJIAN KES PENGALAMAN PEMBELAJARAN TRANSFORMATIF
DI KALANGAN PENGURUS PERTENGAHAN**

Oleh

Ng Chiew Sum

Februari 2008

Pengerusi: Professor Madya Dr Jamaliah Abdul Hamid

Fakulti: Fakulti Pengajian Pendidikan

Organisasi pekerjaan sedang menghadapi perubahan-perubahan luar jangka dan mendadak dalam persekitaran ekonomi semasa dari segi kos tenaga yang tinggi, peningkatan dalam komunikasi teknologi maklumat (ICT) dan perubahan dalam bioteknologi. Namun demikian, pulangan kepada kebanyakan syarikat turut meningkat hasil daripada aplikasi ilmu pengetahuan yang menyebabkan penggunaan sumber pada tahap minimum. Pengurus pertengahan dalam organisasi-organisasi ini tidak lagi berupaya mengurus proses kerja, memasarkan produk atau perkhidmatan menggunakan kaedah arahan dan kawalan yang digunakan secara tradisi. Mereka perlu merangka semula perspektif untuk menerima peranan pengurusan baru berdasarkan paradox yang membina dan mengambil pendekatan keusahawanan. Pengurus korporat bukan sahaja perlu mempelajari kemahiran pengurusan baru tetapi juga menghayati pembelajaran transformatif untuk mempertingkatkan keupayaan mereka selain mempersoalkan andaian-andaian, membentuk alternatif dan mengatur semula proses-proses berkaitan. Penyelidikan ini mengambil pendekatan kualitatif dengan pensampelan tapak penyelidikan serta responden kajian berpandukan kepada akses, jenis industri dan kenalan penyelidikan tentang industri berkenaan. Penyelidikan ini menggunakan kaedah temubual tidak berstruktur dan seramai 25

orang responden telah ditemubual secara bersemuka oleh penyelidik sendiri. Keputusan temubual diproses menggunakan kaedah analisis induktif. Penemuan utama adalah bahawa keupayaan tabiat penyesuaian, pandangan dan skema pengurus pertengahan adalah hasil daripada interaksi mereka dengan persekitaran kerja pekerja, pembekal dan pelanggan serta pemilik. Pembelajaran dirangsang bukan melalui dilema tidak tertumpu tetapi oleh pertambahan secara gradual pendirian pengurus dan evolusi secara perlahan skema-skema baru dalam tempoh bekerja. Penyelidikan ini telah mengwujudkan hubungan antara pembelajaran transformatif individu dengan kemajuan kerjaya persendirian, pengalaman bekerja dan pengaruh luaran. Suasana pembelajaran transformatif didapati menghubungkan serta berasional kognitif. Penemuan-penemuan penyelidikan ini telah menyumbang kepada pembelajaran transformatif dengan menentukan penggunaan insiden kritikal/temubual tidak berstruktur dengan tujuan mengenalpasti pengalaman pembelajaran transformatif di kalangan pengurus pertengahan, dan melalui pengwujudan konteks dialogik untuk memperjelaskan pengalaman pembelajaran mereka. Sumbangan teoretikal penyelidikan ini termasuk tahap pembelajaran transformatif, pemeringkatan pandangan kumulatif dan ujian-ujian sebenar ke atas pembelajaran transformatif.

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I certify that an Examination Committee met on 13th December 2007 to conduct the final examination of Ng Chiew Sum on his Doctor of Philosophy thesis “Transformative Learning Experiences amongst Middle Managers in Selected Small Medium Enterprises in Malaysia” in accordance with Universiti Pertanian Malaysia (Higher Degree) Act 1980 and Universiti Putra Malaysia (Higher Degree) Regulations, 1981. The Committee recommends that the candidate be awarded the relevant degree. Members of the Examination Committee are as follows:

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DECLARATION

I hereby declare that the thesis is based on my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at Universiti Putra Malaysia or any other institutions.

Ng Chiew Sum

NG CHIEW SUM

Date: *22 August 2008*

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LIST OF ABBREVIATIONS

Abbreviations	Full Names
ADB	Asian Development Bank
AFTA	ASEAN Free Trade Agreement
ASEAN	Association of South East Asian Nations
CAFE	corporate average fuel economy
CAML	collaborative approach to managerial learning
CVF	Competing Values Framework
DAC	data acquisition and control
EU	European Union
FDI	foreign direct investment
FIFO	first-in-first-out
FMCG	fast moving consumers goods
GLC	government-linked corporation
GM	genetically modified
HEV	hybrid electric vehicle
HOC	head of company
ICJ	International Court of Justice
ICT	Information and Communication Technologies
IMF	International Monetary Fund
ISO	International Standards Organisation
MIDA	Malaysian Investment Development Authority
MNC	multi-national corporations
MPOB	Malaysian Palm Oil Board
NAFTA	North American Free Trade Agreement
NAPF	National Automotive Policy Framework
OEM	original equipment manufacturing
PLC	product life cycle
SARS	severe acute respiratory syndrome
SME	small medium enterprise
TNC	trans-national corporation
TSG	teachers study group
TUV	Technischer Überwachungs-Verein (Technical Monitoring Association in English)
VOIP	Voice on Internet Protocol

WHO World Health Organisation
WTO World Trade Organisation



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CHAPTER 1

1 INTRODUCTION

Business in the modern complex environment grows or survives based on renewed awareness of the competitive and globalised context. Unless corporate managers are able to transform their thinking, critically reflect on the globalised economy, and question assumptions to interpret meaning of their working experiences, the success of the corporation will not be assured. Acquiring transformative learning and critical thinking skills prepare managers to meet these new challenges (Brooks, 2004). Transformative learning is the change that results in transformed perspective, whether a new or revised meaning perspective that guide people to act or think differently during decision making or problem solving. Transformative learning occurs during encounters with various types of situations, sometimes natural or at times induced, such as during training or purposeful immersion. Naturally occurring dilemmas such as disasters can also trigger changed perspectives.

1.1 The Changing Business Environment and its Challenge to Middle Managers

1.1.1 The Changing Complex Operating Environment

The business environment is influenced largely by the geo-political events and social-economical changes. The political events having impacts on the operating environment are the expanded European Union (EU) and the breaking up of the former Soviet-bloc into fragmented Eastern Europe. The slow but sure reintegration



of the former Soviet allies into the expanded EU will create a large market both in terms of consumptions and source of cheap but technologically advanced labour. Here in Asia, the awarding of the Olympic Games to Beijing in 2008 has increased the frenzy of building boom in China and pulled in FDI at the expense of the countries in the ASEAN regions. The availability of large pool of technically competent engineers and workers attracts the trans-national corporations (TNC) to relocate their manufacturing in China, again at the expense of the countries in the ASEAN region. Corporate managers must be acutely aware of the geo-political events that have repercussions on other parts of the world.

Crude oil prices have been erratic and on the uptrend since end of 2005. The huge increase in the crude oil price has two effects. One of these effects is the huge increase in payments on the crude oil and its adverse effect on the balance of payments of the oil-importing countries, and the import-induced inflation due to increased cost of generating energy, heating, automotive and other transport vehicle fuel expenses. High crude oil price could curtail economic growth globally and affect global trade.

Concomitant with the huge increase in crude oil revenue is the increased anxiety the oil-producing nations have on investing in long terms assets (treasury bonds, real estates, equities of blue-chip US companies) in the US. The recycling of this oil wealth especially in the form of investment-grade foreign countries governments (especially in the ASEAN regions) creates huge opportunity to tap the financial resources of the oil producing countries.

Corporate managers must be aware of this change in economic and political contexts and their effects on the economy of this country. They must constantly reflect on the changes that have brought about a “trend break” for example the siphoning of FDI to China and other former Soviet-allies and the effect of huge crude oil revenue and the oil-producing nations’ desire to diversify from their traditional countries of investment. Already many Malaysian corporations have followed the footsteps of their US or European counterparts in investing directly into China. Corporate managers must have a different mind-set – one that is attuned to global investing or globalised economy that affects everyone directly or indirectly.

1.1.2 Globalisation

Globalised branding and distribution are aimed at gaining market dominance and widespread adoption and usage of their products. The global brands (for example Citibank, HSBC, and IBM) are instantaneously recognisable from all parts of the world (“The 100 Top Brands”, 2004). They represent the dominant players in their sectors often eclipsing the next competitors. Global brands are associated with global sporting, pageantry, entertainment, and cultural events to increase their brand awareness – from F1 Grand Prix, FIFA World Cup, and Olympic Games. Brands and brand loyalty are a part of the intellectual capital that all globalised corporations aim at building, protecting and propagating. Global brands command competitive positions in that they have the financial resources to relocate, sub-contract or outsource, or form alliances in order to gain market dominance.

Globalised companies (Rhinesmith, 1991) excel in organised regional centres *spanning* all continents. BMW located one of their three BMW Group Data Centres

for the whole world in Cyberjaya to support Asian countries including Japan, South Korea, New Zealand, Australia, India, and China as well as parts of Asia (Yapp, 2005). Continental AG – the German tyre and automotive component conglomerate purchased majority shares of Sime Darby Tyre Sdn Bhd better serve Australasia region. Mergers and acquisitions, strategic alliances and lobbying are steps taken by the global companies to gain market dominant power to dictate trends, and promote emergent products.

Malaysian companies likewise have to follow suit to compete. Examples are MISC/Petronas purchase of American Eagle Tanker to own the biggest fleet of liquefied natural gas (LNG) tanker ships, and IOI's purchase of an edible oil refinery (Loders Croklaan) plant in Holland in 2002 (McGuigan, 2005).

Organisations must constantly evaluate the competitiveness of their own industry. They must also look at the government's guiding role (Euromoney, 2003) and their influence in shaping the industrial sector the companies are in.

1.1.3 Technology and its Influence on the Corporations

There is not a single industry where technology has not permeated and influenced the making, marketing, or the usage of the products. Two important technologies seem most pervasive and these are Information and Computer Technologies (ICT) (Walsham, 2001) and biotechnology.

ICT are ubiquitous in commerce and manufacturing, information storage, financial products and services (Castells, 1996). Online database enhance financial decision

making (interest rate, stock prices, exchange rate), academic research (for example Emerald Fulltext), in regulatory (passport and visa control), and crime control (Interpol).

Remotely digitally controlled devices substitute for human beings in performing tasks almost impossible to handle in dangerous environment such as nuclear plants, deep sea, volcanoes and high attitudes. Many companies utilize digital technology (for example voice over internet protocol, VOIP) to build telephone call business (for example Skype) or online auction (for example eBay).

Biotechnology has been utilized in producing genetically modified (GM) plants with specific pest-resistance or anti-frost or antibody-production properties. The use of biotechnology enables production of such diverse and economically important medicine like the SARS detection kits, the H5N1 antiviral medicine etc.

The complex environments manifested in the form of globalised economy, wider interconnections, rapid progress of ICT, high crude oil prices impact every nation and every corporation and private citizen. The end of cold war gave rise to a new politics gyrated towards crude oil supply and pricing, regional economic blocks and delineation of the US from other parts of the world in specific ideologies (for example global warming, terrorism etc).

Corporate managers must constantly revise their habits of mind (mindsets or perceptive filters) to view the new world shaped by new technology, new economic threats (for example high energy prices) and environmental threats (global warming) that could plunge the world into chaos.

1.1.4 A New Knowledge-based Economy

The traditional economy characterised by conventional bulk processing is the predominant means of production since the industrial revolution. Conventional bulk processing of primary commodities such as rubber, palm oil and building materials such as cement and steel follows the law of diminishing returns. This diminishing returns economy may be contrasted with production of goods and services that follows the law of “increasing returns economy” (Arthur, 1996), which has been referred popularly as the knowledge economy (Drucker, 1992). Arthur (1996) describes products obeying the principle of increasing returns economy such as “pharmaceuticals, computer hardware and software, aircraft and missiles, telecommunications equipment, bioengineering drugs” as “complicated to design” and “heavy on know-how and light on resources”. Heavy initial costs like R&D, customised equipment and long ingestion times characterised the production of such products. Corporate managers must have multiple perspectives of the economic world of production.

1.2 New Skills for Managers

Corporate managers must think beyond the day-to-day running of their business to conceive ideas foreign to their current norms. They must think beyond solving the problems that relies on a single feedback mechanism which focuses on the immediate production issue and its rectification (Argyris & Schon, 1978). They must embrace transdisciplinary knowledge (Boud & Solomon, 2001) to solve increasingly more complex problems at the workplace.

1.2.1 Paradox Management

A paradox is one that exhibits inexplicable and contradictory aspects (The American Heritage College Dictionary, 1993). A manager must be able to manage paradoxical situations and ideas (Naisbitt, 1994, Marsh, 1998, Rhinesmith, 2001). Robert Quinn (Vilkinis & Cartan, 2001) reckons effective managers should possess skills that span two dimensions – to be able to maintain stability in time of corporate prosperity and maximum capacity utilisation but also remain flexible enough to respond to changes and re-tool, re-adjust production when there is recessionary pressure to conserve resources, choosing designs that are globally appealing or adapting to local taste (Rhinesmith, 2001). Paradox management involves thinking and speaking of surprises and chaos (Lee, 1995) versus thinking of linear and stable projections of the current company's business, such as promoting a Pan-European nuclear fusion energy project in France (Burke, 2005) despite of dangers posed by nuclear mishaps such as Chernobyl or Three-Mile Islands.

1.2.2 Corporate Entrepreneurial Skills

Besides managing paradox (Rhinesmith, 2001, Naisbitt, 1994) managers should embrace a more entrepreneurial attitude, of being obsessed with opportunities to act on ground-breaking but risky projects. Octagon Consolidated Bhd converts 120 tonnes of discarded old tyres a day to recover important industrial chemicals, and alleviate the problem of disposal at dump site (Malaysian Investment Development Authority [MIDA], 2005).

1.3 Transformative Learning

Learning in the workplace has often concentrated on instrumental and communicative learning (Habermas, 1971). Instrumental learning increases one's technical knowledge (Cranton, 1994) while communicative knowledge increases one's ability to understand the explicit or implied meanings of others in work-related situations as verbal communications, or cues. Transformative learning with its emphasis on understanding one's own and others' assumptions and expectations, and the necessity to revise these assumptions and expectations to reinterpret experiences has been the subject of many studies recently (Taylor, 1998).

1.3.1 The Gap between Learning Events and Transformed Perspectives

So far the literature has been clear on the events that can be manipulated to encourage learning. But little is known about the how much and in what form new learning is assimilated and how much it has transformed individuals. It is valuable to know how people transform explicit and tacit knowledge obtained through technology, socialisation, or documentation to valuable insights that guide their new schema in planning for their work. The question of how and what has been transformed of knowledge during the learning process is still relatively unstudied. It will be instructive to know how transformative learning occurs at the workplace.

1.3.2 Transformative Learning at the Workplace: Why Do We Need It?

At one time, it was a customary wisdom to accept that adults were self-directed learners and would be able to decide on what they want to learn and how to learn it.