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ลิขสิทธิ์ของจุฬาลงกรณ์มหาวิทยาลัย

A STUDY OF SELECTED PREDICTORS OF ENGLISH  
READING TEST PERFORMANCE IN CONSUMER  
PRODUCT MARKETING OF FOURTH-YEAR  
UNIVERSITY STUDENTS



Miss Nisa Vongpadungkiat

สถาบันวิทยบริการ  
จุฬาลงกรณ์มหาวิทยาลัย

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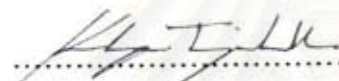
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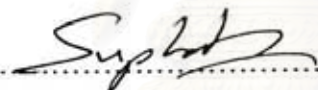
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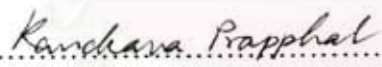
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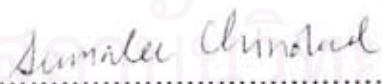
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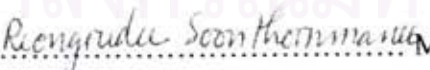
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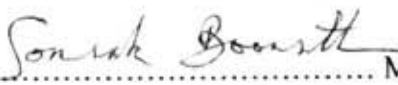
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นิตา วงศ์คุณเกียรติ : การศึกษาตัวแปรที่มีอำนาจในการทำนายผลการทดสอบการอ่านภาษาอังกฤษด้านการตลาดสินค้าอุปโภคบริโภคของนักศึกษาชั้นปีที่ 4. (A STUDY OF SELECTED PREDICTORS OF ENGLISH READING TEST PERFORMANCE IN CONSUMER PRODUCT MARKETING OF FOURTH-YEAR UNIVERSITY STUDENTS) อ. ที่ปรึกษา: ศ.ดร.กาญจนาปราบพาล, 190 หน้า. ISBN 974-14-3914-8

การวิจัยนี้มีวัตถุประสงค์เพื่อศึกษา (1) ความสัมพันธ์ระหว่างผลการทดสอบการอ่านภาษาอังกฤษด้านการตลาดสินค้าอุปโภคบริโภคและตัวแปรอิสระสามตัว ได้แก่ เนื้อหาของวิชาการตลาดที่เรียน ผลสัมฤทธิ์ในการเรียนวิชาภาษาอังกฤษและผลสัมฤทธิ์ในการเรียนทุกวิชา (2) ความสามารถของตัวแปรอิสระตัวใดตัวหนึ่งหรือมากกว่าหนึ่งตัวในการทำนายผลการทดสอบการอ่านภาษาอังกฤษด้านการตลาดสินค้าอุปโภคบริโภค และ (3) ทักษะของผู้สอบที่มีต่อข้อสอบ ในการวิจัยนี้ ประชากร ได้แก่ นิสิตชั้นปีที่ 4 คณะพาณิชยศาสตร์และการบัญชี สาขาบริหารธุรกิจ จุฬาลงกรณ์มหาวิทยาลัยในปีการศึกษา 2548 กลุ่มตัวอย่างประกอบด้วยนิสิตจำนวน 133 คนจากกลุ่มประชากร เครื่องมือที่ใช้ในการวิจัยมี 2 ชุดคือ (1) ข้อสอบสำหรับการอ่านภาษาอังกฤษด้านการตลาดสินค้าอุปโภคบริโภค ซึ่งพัฒนาจากข้อมูลที่ได้รับจากการสัมภาษณ์ผู้เชี่ยวชาญในสาขา คลังข้อมูลทางภาษา และการวิเคราะห์เนื้อหาของตำราในสาขา (2) แบบสอบถามข้อมูลและทัศนคติของผู้สอบ ผู้วิจัยใช้ค่าสหสัมพันธ์เพียร์สันในการวิเคราะห์ระดับและนัยสำคัญของความสัมพันธ์ระหว่างตัวแปรอิสระและผลการทดสอบการอ่าน สำหรับการวิเคราะห์ความสามารถในการทำนายผลการทดสอบ ผู้วิจัยใช้การวิเคราะห์ถดถอยเชิงพหุ และ ในการประเมินทัศนคติของผู้สอบ ผู้วิจัยใช้ค่าเฉลี่ยรวมของมาตรวัดทัศนคติในการวิเคราะห์

ผลการวิจัยพบว่า (1) ตัวแปรอิสระทั้งสามมีความสัมพันธ์อย่างมีนัยสำคัญกับผลการทดสอบการอ่านภาษาอังกฤษด้านการตลาดสินค้าอุปโภคบริโภคในระดับ .05 ดังนี้ (1.1) ผลสัมฤทธิ์ในการเรียนวิชาภาษาอังกฤษและผลการทดสอบการอ่านมีค่าสัมประสิทธิ์สหสัมพันธ์เท่ากับ .537 ( $p < .01$ ) (1.2) ผลสัมฤทธิ์ในการเรียนทุกวิชาและผลการทดสอบการอ่านมีค่าสัมประสิทธิ์สหสัมพันธ์เท่ากับ .335 ( $p < .01$ ) และ (1.3) เนื้อหาการเรียนวิชาการตลาดและผลการทดสอบการอ่านมีค่าสัมประสิทธิ์สหสัมพันธ์เท่ากับ .246, ( $p < .01$ ) (2) ผลการวิเคราะห์ถดถอยเชิงพหุพบว่า ตัวแปรผลสัมฤทธิ์ในการเรียนวิชาภาษาอังกฤษเป็นตัวแปรอิสระเพียงตัวเดียวที่สามารถทำนายผลการทดสอบการอ่านภาษาอังกฤษด้านการตลาดสินค้าอุปโภคบริโภคได้อย่างมีนัยสำคัญ โดยสามารถทำนายความสัมพันธ์ได้ร้อยละ 29.7 ( $r^2 = .297, p < .05$ ) ทั้งนี้ ผลการวิเคราะห์พบว่าเนื้อหาการเรียนวิชาการตลาดและผลสัมฤทธิ์ในการเรียนทุกวิชาไม่สามารถทำนายผลการทดสอบการอ่านภาษาอังกฤษด้านการตลาดสินค้าอุปโภคบริโภคอย่างมีนัยสำคัญได้ (3) ค่าเฉลี่ยรวมของมาตรวัดทัศนคติในแบบสอบถามคือ 3.38 จากมาตรวัด 4 ระดับ แสดงถึงทัศนคติในทางบวกของผู้สอบที่มีต่อข้อสอบสำหรับการอ่านภาษาอังกฤษด้านการตลาดสินค้าอุปโภคบริโภค งานวิจัยชิ้นนี้เพิ่มพูนความรู้ความเข้าใจในด้านการศึกษการทำนายผลการสอบด้านการอ่านสำหรับภาษาอังกฤษเฉพาะทางโดยเฉพาะในด้านธุรกิจ กระบวนการในการพัฒนาแบบทดสอบและการวิจัยสามารถนำมาใช้เป็นประโยชน์ต่อการวิจัยในอนาคตในเนื้อหาที่เกี่ยวข้องต่อไป

สาขาวิชาภาษาอังกฤษเป็นภาษานานาชาติ (สหสาขาวิชา)  
ปีการศึกษา 2549

ลายมือชื่อนิตา นิตา วงศ์คุณเกียรติ  
ลายมือชื่ออาจารย์ที่ปรึกษา

## 4789666520: MAJOR ENGLISH AS AN INTERNATIONAL LANGUAGE  
KEY WORD: TEST TAKERS' VARIABLES/ ENGLISH READING TEST/ ENGLISH  
FOR BUSINESS PURPOSES/ MARKETING

NISA VONGPADUNGKIAT: A STUDY OF SELECTED PREDICTORS OF  
ENGLISH READING TEST PERFORMANCE IN CONSUMER PRODUCT  
MARKETING OF FOURTH-YEAR UNIVERSITY STUDENTS. THESIS  
ADVISOR: PROF. KANCHANA PRAPPHAL, Ph.D., 190 pp.  
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The objectives of this study were to investigate (1) the relationship between scores from a Reading Test of English in Consumer Product Marketing (RT-ECPM) and the three selected test takers' variables namely formal content study, English language attainment and overall academic achievement, (2) the extent to which the three variables individually or in combination predict the RT-ECPM scores, and (3) the test takers' attitude towards the RT-ECPM. The population was fourth-year students from the Faculty of Commerce and Accountancy majoring in Business Administration at Chulalongkorn University of 2005 academic year. The samples consist of 133 students from the population. Two research instruments were developed to collect data in this study. A Reading Test of English in Consumer Product Marketing was formulated using the combined effort of the face-to-face interviews with the subject experts, corpus compilation and content analysis of related text books. A questionnaire for test takers was developed to collect data on test takers' variables and their attitude towards the RT-ECPM. Pearson correlation coefficients were calculated to explore the strength and the significance of the relationships between the three variables and the RT-ECPM scores. Multiple regression analysis was employed to study the predictability of the three independent variables on the performance in the RT-ECPM. Descriptive statistics using mean score was carried out to reveal the test takers' attitude towards the test.

The findings revealed that (1) there were significant relationships between each of the three independent variables and the RT-ECPM scores at .05 level, i.e., English language attainment and the test score with  $r = .537$ ,  $p < .01$ ; overall academic achievement and the test scores with  $r = .335$ ,  $p < .01$ ; formal content study and the test scores with  $r = .246$ ,  $p < .01$ , (2) Only English language attainment is found to be the significant predictor of the performance in the RT-ECPM with  $r^2 = .297$ ,  $p < .05$ . Formal content study and overall academic achievement were not found to be significant predictors of the RT-ECPM scores, and (3) The grand mean score of 3.38 from the 4-point scale on the test takers' questionnaire indicated that the test takers have positive attitude towards the RT-ECPM. The findings provided more insight into the predictors of the reading test performance in English for Specific Purposes particularly in the business area. The study also presented a detailed procedure in developing an ESP test which could be useful for future research.

Field of Study English as an International Language  
(Interdisciplinary Program)

Student's signature *Nisa Vongpadungkiat*

Academic Year 2006

Advisor's signature *Kanchana Prapphal*

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สถาบันวิทยบริการ  
จุฬาลงกรณ์มหาวิทยาลัย

# CHAPTER I

## INTRODUCTION

### **Background of the Study**

Economic reason is one of the most important forces that drive changes and innovative development around the world. Since all economic transactions are accomplished by certain means of communication, language plays a crucial role in helping the world run. English is undeniably the most influential language that links people in the educational, business and economic worlds today. An indispensable element that could pave the way to a person's success in today's global economy is the skillful use of oral and written communication in English. The trend will continue for many years to come and is likely to be even more evident in the future. When Japan faced the economic recession in the late 1990s, a poor standard of English was cited as one of the contributing factors since the language handicap could hold the Japanese back in an increasingly Internet-oriented world, where the bulk of information is written in English (Kin, 1999).

English for Business Purposes (EBP) is, therefore, currently the area of greatest activity and growth in all English for Specific Purposes (ESP) studies (Dudley-Evans and St John, 1998). Most English-medium communications in business are in the English as an International Language (EIL) context, i.e. mainly between non-native speakers to non-native speakers. Among those in a business circle, one of the most dynamic areas is Consumer Product Marketing. Consumer Product Marketing businesses particularly those involved with Fast Moving Consumer Goods (FMCG) cover a notably wide range of enterprises, for example, automotive goods, children's products, computers, confectionery products, food, drinks, electronic appliance, fashion, furniture and telecommunications (FMCG Brands Directory, 2004). It has a high degree of contact with the general public because of its key function in marketing and distributing products to the mass consumers who are the majority of the people in a country.

Kelly News Services reported that, “Despite being nearly obliterated by killer tsunamis, wounded by the SARS virus and overwhelmed by avian flu, Asia remains poised for growth in the coming year in the sectors of fast moving consumer goods, retail and logistics” (Santos-Dizon, 2006). Fast moving consumer goods (FMCGs) is a giant industry that is perpetually expanding (ibid). According to ACNielsen, the world's leading marketing information provider, FMCG in Southeast Asia enjoyed very high growth in 2004, even higher than the rest of Asia except China. In 2004, Thailand experienced a significant sales expansion as high as eight per cent in FMCG sales (AcNielsen, 2005). According to Kasikorn Thai Bank Research Center, in 2000 alone, foreign investment by a few conglomerates brought more than 8,000 million baht into Thailand. Cited as examples were Procter & Gamble who invested 5,700 million baht in manufacturing facilities of skin care and hair care products; Sahapattanapibul, in a joint venture with Mitsubishi from Japan put 700 million baht into 6 new projects and Johnsons & Johnsons invested 1,588 million baht in a production plant of sanitary napkins and baby talcum powder. Not only was there investment in the manufacturing sector, but also retailing and distribution outlets have invested billions of baht in recent years. Advertising and media, logistics and supply chain are the peripheral industries positively affected by the enormous investment and transactions of this group of businesses.

In terms of human resources, these companies hire a lot of people for their operations. “As the need for newer, more innovative products arises, so does the need for competent, talented individuals whose skills might bring what was once merely imagined onto supermarket shelves and then into millions of consumers’ homes ...Currently the (Southeast Asian) region is practically on a *hiring spree*.” (Santos-Dizon, 2006). Since the main players in these industries are world brands from multinational companies, English plays a highly important role in the operations. Fast Moving Consumer Goods offers fast moving careers since the compensation and benefit are quite attractive particularly in the multinational companies. Meeting language requirements is essential in countries such as China, Taiwan, Hong Kong and Thailand, where marketing managers are expected to speak and write English and the local language (ibid).

From the interview conducted with 10 senior executives in the Consumer Product Marketing companies in Thailand during October-December, 2004 (see details on page 63), it was found that all the informants considered that English language ability was highly important for their staff in performing the job successfully and currently most of them were not highly satisfied with their staff's English language ability. In the recruitment process, there are a few companies using scores of academic or general English tests, e.g. Test of English as a Foreign Language (TOEFL), International English Language Testing System (IELTS) or Test of English for International Communication (TOEIC) to infer the potential language performance of the candidates. Most companies, however, do not use any kind of language test at all in recruiting new staff or evaluating existing staff's language ability. TOEFL measures the ability of non-native speakers of English to use and understand North American English as it is spoken, written and heard in college and university settings (Chadwick, 2005). IELTS aims to measure English proficiency of non-native speakers who wish to study or train in English (Beare, 2006). For TOEIC, the aim is to assess listening and reading comprehension of the test takers in a general business context. However, the main focus in TOEIC's reading comprehension section is to evaluate the test taker's ability to use English grammar in a relatively formal manner (Gilfert, 1996). There is still a gap between the available tests and the real language behavior in the marketing field which, according to the subject experts in the interview, practical uses of English language in business transactions and proper comprehension are of paramount concern rather than linguistic elements or grammar.

To date, a test tailored to meet the need in assessing English language proficiency in the field does not exist. For graduating students who plan to start their careers in these industries, they are short of opportunity to assess and prepare themselves before entering the market work force. Since the Business Administration students in Thailand mainly study in Thai syllabus and are instructed in Thai or their L1, the adequate level of English language proficiency could be one of the key concerns. Therefore, the test could serve as a tool to self-assess their readiness to enter the work market. For companies, such a test could

aim to measure English language performance of candidates as well as that of the existing staff for language development.

In this study, the subjects are university students in the Faculty of Business Administration who, upon graduation, could start their careers in these industries as, for example, Product Executives, Marketing Trainees, Assistant Brand Managers, etc. The study was done with fourth-year university students in the Faculty of Commerce and Accountancy majoring in Business Administration at Chulalongkorn University in the second semester of the 2005 academic year, a few months before their graduation. The study was conducted in Chulalongkorn University because the instruction in the Business Administration major is mainly done in Thai which is the context common to most of the Business Administration graduates in Thailand. In addition, Chulalongkorn University is one of the most famous universities that provides a great number of graduates in this field to the work market each year, and there is a sufficient number of students in the Business Administration major to meet the statistical requirement of the study.

Regarding the skills to be tested, Peregoy & Bolye (2000) stated that success in literacy, especially reading, is certainly among the most important achievements for all students due to its key role in academic learning and consequent social and economic opportunities. This is in accord with the development in many countries around the world. In Chile, as opposed to the Communicative Language Teaching, the Ministry of Education, in 1998, made a curriculum reform to shift the emphasis to the receptive skills, i.e. reading and listening which each constitutes 40% of the new curriculum, leaving only 20% for the productive skills, i.e. speaking and writing. The Ministry believes that an emphasis on receptive skills reflects the local English needs of Chilean youngsters, who will need English to access the information network and take part in economic activities (McKay, 2003). In a survey conducted between December 2003 and March 2004 by *Business Spotlight Magazine*, a quarterly English language magazine published in Germany, Austria and Switzerland, 1,281 readers who were in work reported that the most common tasks which had to be performed in English were reading e-mails (89%), followed by writing e-mails (85%), telephoning (82%), making small talk (79%), reading letters (78%), reading job-specific literature (74%) and writing letters (71%). Other

common tasks included reading faxes (67%), writing faxes (62%), looking after guests (58%), taking part in meetings (56%), listening to presentations (56%), talking to customers (55%) and reading business reports (51%) (McMaster, 2004:133-134). Reading is, therefore, found to be the most commonly used skill and is fundamental to English-related tasks for people at work in the survey. This is consistent with the findings in the interview conducted by the researcher with the ten senior executives in Consumer Product Marketing companies from October to December, 2004. According to the subject experts in the interview, reading skill is found to be used the most by their staff compared to the other three skills: writing, speaking and listening (see details on page 66). This survey aimed mainly at the target group who are the marketing personnel at the entry level to junior management positions. Therefore, in order to make the test best fit its ultimate use, a reading test of English for Consumer Product Marketing has been developed.

Prior to the test development, essential data on target language use needs to be collected. Needs analysis plays an important role in this respect. Apart from collecting information in the field and from the subject experts, the recent technological development in the linguistics field namely *a corpus-based study* could also be employed to identify the target language use for the test development.

A recent concern among researchers in the field of language testing has been the identification of the test taker characteristics that influence performance on tests of English as a Foreign Language (EFL) or English as a Second Language (ESL). These test taker characteristics include personal attributes such as age, native language, gender, educational characteristics, e.g. background knowledge, previous exposure to English as well as cognitive, psychological and social characteristics, e.g. learning strategies and styles, attitude and motivation, aptitude and intelligence, field dependence and independence, extroversion and introversion and anxiety, personality and risk taking (Kunnan, 1995:1). According to the literature review in Chapter II, there are a number of variables that play important roles in ESP tests. Several studies have found significant interactions between background knowledge and language test performance (Douglas, 2000). In English for Academic Purposes, formal content study or background knowledge is sometimes seen as a confounding variable and should be minimized at best. But for

English for Specific Purposes, background knowledge is a necessary and integral part of the concept of specific purpose language ability (ibid). Based on studies conducted by Tan (1990) and Clapham (1996), comprehension of a discipline-related text could be predicted both by the background knowledge and by language proficiency but language proficiency is the better predictor. English language ability is, therefore, found to be a powerful predictor of the success in the test performance. In addition, among all the variables that could influence the performance in language tests, academic or cognitive ability is one of the factors that could predict the success in tests (Thorndike, 1917; Carver, 1974; Genesee, 1976; Kattan, 1990 and Berman, 1991). In this study, these three test takers' variables will be investigated if they could be the predictors of performance in reading test in Consumer Product Marketing. They are formal content study, English language attainment and overall academic achievement. A study on predictors of the test scores which is the focus of this study could provide the students and the universities with the information that could be used to initiate a course of action for students' self-development and the curriculum design to reinforce the performance in business tests. In conclusion, the study of the influence of these characteristics on the test performance could contribute towards the language learning and testing in business area.

### **Objectives of the Study**

This study attempts to investigate the relationships between each of the selected test takers' variables and the performance in the Reading Test in English for Consumer Product Marketing (RT-ECPM) and the predictive ability of the selected variables on the RT-ECPM scores. In addition, the study aims to explore the test takers' attitude towards the RT-ECPM. Their attitude could reflect how the RT-ECPM is received by the test takers who are the key stakeholders. This study, thus, aims to examine:

1. the relationship between each of the selected variables which are a) formal content study, b) English language attainment and, c) overall academic achievement and the performance in the RT-ECPM.



2. the extent to which the three variables individually or in combination predict the test performance in the RT-ECPM.
3. the attitude of the test takers towards the RT-ECPM.

These objectives lead to the following research questions.

### **Research Questions**

1. What is the relationship between each of the selected test takers' variables which are (a) formal content study, (b) English language attainment and, (c) overall academic achievement and the RT-ECPM scores?
2. To what extent can the three variables individually or in combination predict the RT-ECPM scores?
3. What are the attitudes of the test takers towards the RT-ECPM?

### **Statement of Hypotheses**

Hypothesis 1: There is a significant relationship between each independent variable and the RT-ECPM scores at the .05 level  
( $H_1: r \neq 0, p \leq .05$ ).

Hypothesis 2: The three selected independent variables can individually or in combination significantly predict the RT-ECPM scores at the .05 level ( $H_2: \text{at least one } B \neq 0, p \leq .05$ ).

Hypothesis 3: The test-takers have positive attitudes towards the RT-ECPM.  
( $H_3: \text{Mean of attitude scale } \geq 2.5 \text{ from the 4-point scale on the questionnaire}$ )

For the above hypotheses, directional hypotheses are employed because previous research studies indicate that the independent variables may have an effect on the dependent variable. As Bachman (2004) states, in the situations where prior experience, theory or previous research suggest a direction in relationship, a stronger or directional research hypothesis could be formulated instead of the null hypothesis.

### **Scope of the Study**

1. The population and the sample groups in this study were limited to fourth-year students in the Faculty of Commerce and Accountancy majoring in Business Administration at Chulalongkorn University in the second semester of 2005 academic year. They were students who were about to graduate and start their careers. Generally, students majoring in Business Administration are accepted as candidates in the recruitment process of the Consumer Product Marketing companies according to interviews with the subject experts.
2. The independent variables examined in this study are limited to the three selected test takers' variables which are formal content study, English language attainment and overall academic achievement.
3. This study focuses on the reading skill in English for Consumer Product Marketing. The study on other skills: speaking, listening and writing is not included in this study.

### **Limitations of the Study**

1. The grade from the Principles of Marketing course is used in operational definition as data indicating the students' level of formal content study or background knowledge. Since the course was generally taken in the second-year of study, there could be some attrition on the students' marketing background knowledge by the time the test was taken. However, the course is the marketing-related course that all students need to take as a required course and the grade achieved assumes high potential in reflecting the level of students' background knowledge in the marketing field.
2. The data collected on grades is self-reported by the students. Therefore, there is a possibility that some students might have forgotten or reported wrong grades in the questionnaire. The researcher minimized the likelihood by explaining to the students before the questionnaire was filled in that the grades would be solely used for analysis and had no effect on their performance in the courses or the RT-ECPM scores. In addition, for students who reported that they were uncertain about their grades, their test results were not included in the study to minimize the undesirable effect.

3. Since the students' raw scores in the Principles of Marketing and the three last Business English courses were not available, the students were asked to report their letter grades for data analysis. The letter grades (A-F) which were in an ordinal scale were then converted into numbers (4.00-0.00) based on the university's regulations regarding the designated letters and numbers used for students' evaluation (ระเบียบจุฬาลงกรณ์มหาวิทยาลัย, 2542). The fact that the data used was converted from an ordinal scale could pose a limitation and may weaken the degree of relationship of the variables in this study.

### **Assumptions of the Study**

1. This study assumes that the test takers gave valid data on the test takers' questionnaire and put their best effort in working in the RT-ECPM. This is because, before the test was administered, the researcher explained the development, the significance, and the use of the test as well as the opportunity for self-assessment to the test takers. The procedures helped in making the test takers understand the purposes of the test.
2. It is assumed that gender may not have an effect on the RT-ECPM scores.

### **Definition of Terms**

1. Fourth-year Students Majoring in Business Administration at Chulalongkorn University  
The population was the fourth-year male and female students who studied in the Faculty of Commerce and Accountancy majoring in Business Administration at Chulalongkorn University in the second semester of 2005 academic year.
2. The test takers' variables  
The test takers' variables in this study are defined as the test taker's formal content study, English language attainment and overall academic achievement.
3. Formal content study  
It is defined as the grade achieved in the Principles of Marketing course (PM) which is a required course for all the subjects in their second-year study. The grade is used to indicate the level of achievement in studying the content in the marketing field.

4. English language attainment

The term is defined as the average grade achieved in the three latest English courses taken by the subjects (ENG\_AVE): Business English Correspondence, Business English Oral Communication and Advanced Business Oral Communication.

5. Overall academic achievement

It is operationally defined as the cumulative Grade Point Average (GPAX) which covers all areas of academic studies.

6. English for Consumer Product Marketing

The term refers to the English language used in the operations of various activities in Consumer Product Marketing in Thailand. Consumer Product Marketing industry refers to the following businesses: Fashion products, Food products, Household products and, Personal care and Pharmaceutical products.

7. A Reading Test of English for Consumer Product Marketing (RT-ECPM)

RT-ECPM is a test of reading ability in English for Consumer Product Marketing in Thailand, developed by the researcher as a research instrument. The test is in multiple-choice format and in paper and pencil mode, consisting of 45 items. The answer sheet is machine-scorable. The testing time is 60 minutes.

8. The reading test score in the RT-ECPM

It is the test score in the RT-ECPM (T\_SCORE). It is the dependent variable in this study.

### **Significance of the Study**

1. The study on predictors of performance in the test could provide theoretical contributions in language learning and testing in the business area. This study could extend the knowledge on how formal content study, English language attainment and overall academic achievement relate to test performance particularly in English for Business Purposes. When the findings indicate that a particular variable has a significant relationship with the test performance, a course of action concerning curriculum design to reinforce the test takers' performance could be executed. In terms of language testing, a study on predictors could reveal the association between

the variables and the test scores which could lead to explain the variations in language test performance. Though studied extensively in the past decades, these test takers' variables are hardly investigated in terms of their relationships with performance in a business-related test. The findings in this study could be used to investigate whether or not these variables will have similar effects on test scores as when they are present in the EAP environment.

2. As this research project represents a pioneering venture in this industry, it could also reveal many features that characterize English language use in the marketing field. Moreover, the investigation on the attitude of test takers will provide information on how a specific purpose test tailored specifically to meet the needs in this field is received by the test takers who are key stakeholders. If the positive attitudes are apparent, similar procedures in developing and administering tests could be replicated for future research.
3. RT-ECPM could be useful to a number of parties involved in the practical aspects of English for Business Purposes particularly those concerned with Consumer Product Marketing.
  - 3.1 For companies in the Consumer Product Marketing field, this study serves to provide a test tailored specifically to address their needs. It could be used to identify the level of proficiency as well as the area of language improvement for their staff. In addition, it could also be useful in the recruitment process. The information on predictors could provide information on the potential language performance of their applicants. For graduating students, the test could be useful as an instrument for self-assessment of their language ability if they plan to pursue their careers in the Consumer Product Marketing field.
  - 3.2 For universities, since the test was developed based on the data gathered in the field, it could equip the universities with information which has not been available before about the nature of target language use in the Consumer Product Marketing industry. This study could bring about a positive washback in language teaching and learning in universities

particularly in the business area. As echoed by Alderson and Bachman (in Douglas 2000:ix), there are not many research studies or publications for those who need to assess language for specific purposes. Teachers and testers have had to take what has been produced for teaching purposes, and seek to convert and adapt it for assessment. This research study attempts to contribute an empirical piece of work to the ESP testing field and could be used as a ground for future research for concerned parties.

### **Overview**

Chapter one provides the background of the study. It includes the objectives of the study, research questions, hypotheses, a definition of terms and the significance of the study.

Chapter two presents a review of related literature on seven key areas which are 1) the theories of reading, 2) the perspectives on language tests, 3) tests of English for Specific Purposes, 4) test takers' variables, 5) text variables, 6) correlation analysis, and 7) multiple regression analysis.

Chapter three focuses on research methodology. The population and sample data are presented. The procedures employed in constructing the research instruments as well as the validation process are provided. Finally, data collection and data analysis are included in this chapter.

Chapter four reveals the findings of the study and they are presented according to the research hypotheses. The second part of the chapter presents a discussion of the findings based on the literature review and theoretical background.

Chapter five provides a summary of the research and conclusions from the findings. The implications from the study as well as recommendations for future research are also included.

## CHAPTER II

### LITERATURE REVIEW

This chapter presents a review of the related literature which are concerned with the underlying concepts of this study. It covers a review of the theories of reading, perspectives on language tests, tests of English for Specific Purposes, test takers' variables, text variables and statistical procedures.

#### 1. Theories of Reading

Reading is the ability to draw meaning from the printed page and interpret this information appropriately (Grabe and Stoller, 2002: 9). The theories of reading developed in previous research studies are presented in this section.

#### Models of reading

There are two different classes of model in reading which are *The Process Models* and *The Componential Models*. While *The Process Models* are concerned with the actual process of reading, *The Componential Models*, in contrast, merely describe what components are thought to be involved in the reading process with little attempt to account for how they interact or how the reading process actually develops in time (Urguhart and Weir, 1998).

1. **The Process Models** Gough (1972), Just and Carpenter (1987) and Rayner and Pollatsek (1989) view the reading process as a series of stages including word recognition, syntactic processing, semantic representation and so on. The approaches suggested in this model are: *Bottom-up*, *Top-down* and *Interactive*. Bottom-up approaches are concerned with readers decoding individual linguistic units such as letters, words, phrases, etc. to construct meanings. The top-down approaches assume that readers make some predictions about the text based on prior experiences or background knowledge and they read to confirm or deny those predictions. Interactive approaches are between the two endpoints: Bottom-up and Top-down. They involve both the application of higher order mental processes and background knowledge as well as the text processing itself. Stanovich (1980), one

of the main supporters of the interactive approach, proposes a model called *Interactive-compensatory* approach which has received a great deal of support (Urquhart and Weir, 1998). In his model, in addition to interactive elements, a weakness in one area could be compensated by the strength in another area, e.g. background knowledge is used to compensate for inadequate language skills or proficient language skill helps to make up for a lack of background knowledge. Prior studies revealed different approaches employed by different levels of learners. Advanced language learners appeared to make more use of top-down skills than lower level students (Clapham, 1996). Coady (1979) claimed that as students became more proficient in a second language, they came to place more emphasis on cognitive strategies than decoding skills. Cziko (1980) and McLeod and McLaughlin (1986) thought that advanced students used interactive skills, while lower ability students depended on bottom-up ones. Clarke (1980) concluded that lower level learners could not decode enough graphic and lexical symbols to activate their top-down processing systems so they rely on bottom-up process. The only counter evidence is offered by Wolff (1987) who found that it was more of the text difficulty rather than language proficiency that affected the kind of process. The more difficult the text was, the more subjects depended on top-down processes.

**2. The Componential Models** The models are supported by Fries (1963), Venezky and Calfee (1970), Perfetti (1977). Hoover and Tunmer (1993) describe the model of reading in the Simple View of Reading Model which consists of two components: *word recognition* and *linguistic comprehension*. Word recognition relates mainly to the process of accessing the lexicon based on graphic information while linguistic comprehension concerns the ability to take lexical information and derive sentence and discourse interpretations. In Grabe and Stoller (2002), the similar structure is proposed under 'processing components of reading', comprising *lower-level* and *higher-level* processes. The lower-level processes are skill-orientated and are concerned with the more automatic linguistic processes such as lexical access, syntactic parsing, semantic proposition formation and working memory activation. The higher-level processes generally represent the comprehension processes that make more use of the reader's background knowledge and inferencing skills. The higher-level processes involve text model of



comprehension, situation model of reader comprehension, background knowledge use and inferencing as well as executive control processes. The supporters of the models, however, posited that the lower-level processes should never be assumed to be easier than the higher-level ones and emphasized that the lower-level processes are crucial in developing fluent reading. The lower-level processes such as rapid processing and automatic word recognition or what is called *lexical access* are the two processes required to be activated for fast and fluent readers. Both processes typically require thousands of hours of practice in reading. Grabe and Stoller (2002:92) believe that major components of fluent reading consist of: a) large vocabulary, b) main idea comprehension, c) strategic reading abilities, d) comprehension monitoring, e) critical evaluation of information being read, and f) formation of attitudes about reading. Fluent reading is absolutely mandatory for successful second language learners.

In contrast to the two-component model, the well-known *three-component models of reading* is proposed by Coady (1979) and Bernhardt (1991). In Coady's 'psycholinguistic model', reading comprehension is viewed as an outcome of successful interaction among *conceptual abilities*, *process strategies* and *background knowledge*. By conceptual ability, Coady means general intellectual capacity and by processing strategies, he means various subcomponents of reading ability, e.g. grapheme-morpho-phoneme correspondences, syllable-morpheme information, syntactic information, lexical meaning and contextual meaning. Coady advocates the benefit of background knowledge as he suggests that:

“The subject of reading materials should be of high interest and relate well to the background of the reader, since strong semantic input can help compensate when syntactic control is weak. The interest and background knowledge will enable the student to comprehend at a reasonable rate and keep him involved in the material in spite of its syntactic difficulty”

(Coady, 1979:12)

However, the three-component model proposed by Bernhardt has a different focus. His three components are composed of *language*, *literacy* and *world*

*knowledge*. Language in this model is defined as the elements of text such as word structure, word meaning, syntax and morphology. Literacy equals operational knowledge which concerns how to approach text, why one approaches it and what to do with it. World knowledge is, in turn, equal to background knowledge. Many similarities between Coady's and Bernhardt's model could be observed. What lacks in Bernhardt's but exists in Coady's, however, is the interaction of the conceptual ability or intellectual capacity of the language reader in the reading process.

Reading is not merely a cognitive operation of meaning extraction but it is a sociocultural practice (Street, 1984). According to Street, the *autonomous model of literacy* assumes that texts, readers and reading are separate and autonomous entities but in his *ideological model of literacy*, readers are social beings and texts are not autonomous and there are interactions between the two. This is consistent with Hill and Parry's (1992) *pragmatic model of literacy* in which texts are regarded as social in nature and intimately related to other texts. Reading is, therefore, context-bound and socially embedded.

### **Skills and Strategies for Reading**

Skills and strategies for accomplishing reading have been studied extensively in the past decades. There is a fair amount of confusion in the literature about the difference between skill and strategy and many use them interchangeably. Grabe and Stoller (2002) indicate the distinction between these two terms. Skills represent linguistic processing abilities that are relatively automatic in their use and their combinations, e.g. word recognition, syntactic processing, etc. Strategies are often defined as a set of abilities under the conscious control of the reader. Examples of strategies are skipping an unknown word while reading, rereading to reestablish text meaning, using flexibility of reading rate, etc. In other words, skills are text-oriented while strategies are reader-oriented. Every test-taker needs to exercise both skills and strategies to perform successfully in a test.

### **Purposes and Types of Reading**

Grabe and Stoller (2002:13) have listed seven purposes of reading, i.e. 1) reading to search for simple information or scanning, 2) reading to skim quickly,

3) reading to learn from texts which is predominant in academic and professional contexts, 4) reading to integrate information, 5) reading to write, 6) reading to critique texts, and 7) reading for general comprehension. One can also see the overlap among all these purposes in one reading. Analogous to Grabe and Stoller's reading purposes, Urquhart & Weir (1998:123) proposed reading types based on Pugh (1978) and Weir (1993) which could be grouped into four categories: *Expeditious-Global* (skimming, i.e. reading quickly to establish a general sense of a text), *Expeditious-Local* (scanning, i.e. reading rapidly to locate a specific symbol or group of symbols), *Careful-Global* (reading carefully to establish accurate comprehension) and *Careful-Local* (reading to understand lexis and syntactic structure in the text).

In second language reading, not only the purposes and types of reading are involved, many researchers believe that first language reading ability also comes into play in reading a second language. The studies concerning the impact of first language to second language reading are presented in the next section.

### **Reading in the First and Second Language**

Differences exist between L1 and L2 reading in terms of contexts and readers. According to Grabe and Stoller (2002:40), there are three major types of difference in this regard. Firstly, there are linguistic and processing differences. These concern differing amount of lexical, grammatical and discourse knowledge at the initial stages of first language and second language reading. The varying linguistic differences across any two languages and transfer influences also add to the differences. Secondly, the difference is in the individual and experiential differences. These relate to the differing levels of first language reading ability, motivation for reading in a second language, etc. Finally, socio-cultural and institutional differences make reading in the first and second language very different. These concern the socio-cultural backgrounds of second language readers, ways of organizing discourse and texts and expectations of second language educational institutions.

Many second language teachers believe that poor second language reading is due to a lack of good first language reading abilities or skills. There are a number of

research studies dedicated to investigate whether second language reading is a language problem or a reading problem. Their findings lead to the notion of a threshold of linguistic knowledge. Clarke's short circuit hypothesis (1980) suggests that inadequate knowledge of the second language short-circuits or prevents successful first-language readers from reading well in a second language. Alderson (1984) supports Clarke by stating that it is likely that there is a language threshold beyond which second language readers have to reach before their first language reading abilities could be transferred to the second language situation. Critics of this hypothesis argue that there is not one level of general language proficiency that can be regarded as the threshold for all readers or for all texts because L2 readers are all different in their L2 knowledge, topic knowledge and L2 reading experience. The threshold is, therefore, believed to vary depending on the reader, the text and the topic (Grabe and Stoller, 2002).

Bernhardt and Kamil (1995) surveyed a number of studies and claim that first language literacy is a strong predictor of second language reading ability. They found that it can explain up to 20% of the variance which is the variability in the test-takers' scores. Nevertheless, second language linguistic knowledge is a more powerful predictor as it accounts for more than 30% of the variance. They, however, point out that most research studies left 50% of the variance in second language reading abilities unexplained.

The above review presents previous findings in reading research. They have influenced both the teaching of reading as well as its testing. The review of the development of language tests particularly in the reading area is presented in the following section.

## **2. The Perspectives on Language Tests**

In the past decades, there were shifting perspectives regarding the practice of language testing. Language testing is regarded as an important activity as it plays a powerful role in people's educational path, employment or registration for certain occupations. For educators, language testing is important particularly in making various decisions regarding students and various instructional aspects.

Apparently, language testing trends and practices highly relate to teaching methodology. On many occasions, a change in language testing was caused by a change in language teaching. In other circumstances, language testing gave rise to change in language teaching and learning or what is known as the 'washback effect' – the effect of testing on teaching and learning particularly from high-stake tests (Baker, 1989).

The history of language education indicates that there have been various trends in language testing. According to Spolsky (1976 as cited in Weir 1990), language testing history could date back to **the Psychometric-Structuralist era**. During this period, tests tended to have two strong characteristics which were of importance to language testers. The first characteristic was being a closed type which meant the test-taker needed to choose between a limited number of responses. The second aspect was about the involvement of elaborate statistical procedures in developing and evaluating this kind of test. The first characteristic assured objective scoring as it left no room for human judgment. The second characteristic offered a readily available set of methods and criteria for analyzing and evaluating language tests. The view of language ability that dominated the field of language testing was one that derived largely from the structuralists. The structuralist linguists saw language as being composed of discrete components (e.g. grammar, vocabulary) and skills (e.g. listening, speaking, reading and writing). There was a belief that language is a sophisticated response system. It was an era of behaviorism in which B. F. Skinner was a major proponent. Language learning was seen as habit formation through conditioning. According to this view, language was best learnt through extensive drills and that mastery is a matter of practice. The **Direct Method** (supported by Gouin, Jespersen, de Souza) and the **Audiolingual Method** (supported by Fries, Skinner, Bloomfield, Brooks) were two prime teaching methodologies in this period. In terms of language testing, focus was placed on decontextualised specific language elements, such as phonological, grammatical and lexical elements. This practice of testing which separates individual points of knowledge is known as **discrete point testing**. It was supported by the theory of psychometrics which was the emerging science of the measurement of cognitive abilities at that time. Though test designers realized that

the integrated nature of performance was needed to be reflected in the test battery, it was accomplished through the additive tests of several-skill testing.

Then language teaching methodologies moved towards the cognitive pendulum. The methodologies introduced in this period were the **Cognitive Code** (by Chomsky and Ausubel), **Total Physical Response** (by Asher), the **Natural Approach** (by Terrell), the **Silent Way** (by Gattegno), **Community Language Teaching** (by Curran) and **Suggestopedia** (by Lozanov). The birth of newly developed language teaching methodologies brought with them a demand for a more integrative view of testing. This period was called **the Psycholinguistic-Sociolinguistic era** (Spolsky, 1976 as cited in Weir 1990). Clark (1983) pointed out that ‘the whole of the communicative event was considerably greater than the sum of its linguistic elements.’ (p.432). The view of language ability as communicative competence presented a major paradigm shift from the structuralists’ concepts. Current views on communicative competence can be traced to the work of Hymes (1972). Hymes introduced ‘**communicative competence**’ which incorporated sociolinguistic and contextual competence as well as grammatical competence. Other researchers who drew heavily on work of Hymes were Savignon (1972), Halliday (1976) and Canale and Swain (1980). Particularly for Canale and Swain, they provided an expanded view of the components involved in Hymes’s communicative competence. They proposed a theoretical framework which encompassed grammatical, sociolinguistic, discourse and strategic competence. Nevertheless, there was little discussion of how these expanded components interacted with each other. During this period, integrative tests came into play. The discrete point tests that used to be highly influential were considered as focusing too exclusively on formal linguistic knowledge rather than on the way such knowledge is used to achieve communication (McNamara, 2000). Oller is one of the most prominent supporters of integrative tests and he argued that language competence is a unified set of interacting abilities and cannot be tested separately. He claimed that competence is integrated and could never be captured in additive tests of grammar, reading, vocabulary and other discrete points of language. Apart from Oller, there were Cziko (1982) and Savignon (1983) who also supported integrative testing. However, integrative testing, while seen as a good means in measuring a

candidate's language ability, tends to be expensive as it is more time-consuming and difficult to score, requires trained raters and above all, is subject to reliability issues as subjective judgment is involved. Two types of tests that well represent integrative tests are cloze tests and dictations.

A **cloze test** is a gap-filling reading test. After an introductory sentence or two which was left intact, words were systematically removed, e.g. every 5<sup>th</sup>, 6<sup>th</sup> or 7<sup>th</sup> word and replaced with a blank. The test taker is required to supply words that fit well into the blanks. Oller (1979) claimed that cloze tests are good measures of overall proficiency, i.e. knowledge of vocabulary, grammatical structure, discourse structure, reading skills and strategies and an internalized 'expectancy' grammar that helps in predicting an item which will come next in a sequence.

**Dictation** is a common and familiar language teaching technique that is applied also as a testing technique. Basically a passage is read aloud to test-takers by an administrator or an audiotape is played and they are required to write what they hear with correct spelling. Supporters argue that dictation is an integrative test because it taps into grammatical and discourse competencies necessary for other modes of performance in a language. Success in a dictation demands careful listening, reproduction in writing of what is heard, efficient short-term memory and to a certain extent, some expectancy rules to assist in short-term memory. Further, dictation test results tend to correlate strongly with other tests of proficiency (Brown, 2004:9).

Proponents of the integrative testing approach strongly believe in the '**unitary trait hypothesis**' which suggests that language proficiency is indivisible. However, the unitary trait hypothesis is challenged by a number of researchers. Farhady (1982) found significant differences in students' performance in ESL proficiency tests. The factors such as students' native language, major field of study and graduate versus undergraduate status all accounted for the differences. For instance, Brazilians scored very low in listening comprehension and relatively high in reading comprehension. Filipinos scored in general considerably higher than Brazilians' but achieved lower scores in reading comprehension. Apparently the research finding did not comply with the underlying belief of unidimensionality proposed by Oller. Farhady's positions were supported by other research studies

that seriously questioned the unitary trait hypothesis. Eventually Oller himself retreated from his unitary trait position (Oller, 1983: 352 as cited in Brown, 2004).

By the mid-1980s, language testing field began to focus on designing communicative and multicomponential language testing tasks. The demand on direct correspondence between language test performance and language use became more prominent. Weir (1990:6) noted that ‘Integrative tests such as cloze only tell us about a candidate’s linguistic competence. They do not tell us anything directly about a student’s performance ability.’ He posited that ‘to measure language proficiency .... Account must now be taken of: where, when, how, with who, and why language is to be used and on what topics, and with what effect’. The assessment field is currently more concerned with the authenticity of tasks and the genuineness of texts.

Eventually, **Communicative Language Teaching and Testing** has been introduced. Built upon Canale and Swain’s work, Bachman’s (1990) description of communicative language ability, while retaining same components, expanded the role of strategic competence, which Canale and Swain had considered to be limited largely to compensatory communication strategies. Bachman’s language competence consists of **organizational competence** which is, in turn, composed of *grammatical* and *textual* competence, and **pragmatic competence**, which is composed of *illocutionary* and *sociolinguistic* competence. Bachman’s description of the functions of strategic competence provides a means to explain how the various components of language competence interact with each other. In 1996, Bachman and Palmer elaborated further the role of strategic competence as metacognitive strategies and included a discussion of the roles of topical knowledge and affective schemata in language use. This multicomponential view of language ability has provided a productive theoretical basis for research and practice in language testing (Bachman and Cohen, 1998:7). There are several test development projects which are clearly based on the multicomponential aspects of language ability such as works of Brindley (1995); McDowell (1995); Clarkson and Jensen (1995); Grierson (1995) and McKay (1995).

Recently a new and more student-centered assessment called ‘**performance-based assessment**’ emerges. It is an attempt to assess students in actual or



simulated real-world tasks. It implies productive, observable skills of content-valid tasks. Performance-based assessment of language typically involves oral production, written production, open-ended responses, integrated performance and other interactive tasks (Brown, 2004). O'Malley and Valdez Pierce (1996) postulate the key characteristics of performance-based assessment as follows: a) students make a constructed response, b) they engage in high-order thinking with open-ended tasks which are meaningful, engaging and authentic, c) tasks require integration of language skills and, d) both process and product are assessed. Performance-based assessment can be one of the primary alternatives to assessment in the future.

In language testing, the key device employed to suit the testing purpose is the test task. An assortment of test tasks has been developed throughout the history of language testing. A number of key reading test tasks are selected here for review on their strengths as well as weaknesses in the following section.

### **Reading Test Tasks**

A **short-answer task** presents a test-taker with a reading passage and the test-taker reads open-ended questions that must be answered in a sentence or two. The advantage of this test task is that it is easy to construct. A short-answer task provides the test-takers an opportunity to construct their own answers which in turn could bring about a positive washback effect particularly when there is a follow-up discussion. The disadvantage focuses on the time-consuming process to develop a list of acceptable responses. Another caution is the possibility of muddled measurement as coined by Weir (1990) when writing skill is involved in testing reading skill.

A **matching task** is employed the most in testing vocabulary given its format restriction on rather short and concise stems and options. The key advantage lies in the fact that it is easier to construct than multiple-choice items. Its disadvantage is that it is far removed from the language behavior of the real world.

A **cloze task** is one of the most popular types of reading assessment tasks. The word 'cloze' was coined by educational psychologists to capture the Gestalt psychological concept of "closure", that is, the ability to fill in gaps in an

incomplete image (visual, auditory or cognitive) and supply (from background schemata) omitted details (Brown, 2004). The technique is based on the assumption that a sentence with a word left out should have enough context that a reader can fill that gap, using his/her formal and content schemata as well as some strategic competence. Researchers with Oller in particular argue that the ability to make coherent guesses in cloze taps into the ability to listen, speak and write. Oller (1979) called this '**pragmatic expectancy grammar**' which enables a test-taker to predict likely sequences of incoming language. Similarly, Bailey (1998) pointed out that at least two kinds of mental competence are invoked in filling the blanks. One is the **syntagmatic competence** which tells the test-taker which part of speech is needed, e.g. a noun, an adjective or an adverb, etc. The second is the **paradigmatic competence** which tells the test taker about the semantic features required of the missing item. In scoring cloze tests, two approaches could be employed. The **exact word method** credits the test-takers only when they supply the word originally deleted. The **appropriate** or **acceptable word method** allows the test-taker to answer with any word that is grammatically correct and that makes good sense in the context. A cloze test is grouped under 'integrative tests' as it more directly measures the language ability in practice. It has become one of the most advocated test types for a long period of time. The strength of a cloze test is on its easiness to construct when compared with a multiple-choice format but scoring cloze tests could be problematic particularly when the appropriate or acceptable word method is employed. In addition, not every text is suitable to be used in a cloze test. Caution must be exercised in selecting text for cloze. The difficulty level of a cloze passage is determined by the length of the sentences and the text as a whole, the amount of time allowed, the learners' familiarity with the topic, the vocabulary, genre and syntactic structures of the passage and the frequency with which the blanks are spaced (Bailey, 1998). However, some cautions exist for using cloze tests. "Research has shown that the five different versions of cloze tests produced by deleting every fifth word, starting at the first word, then the second word and so on, lead to significantly different test results" (Alderson, 2000:208). It means that cloze tests could produce very different results when a different rhythm of deleting is selected, hence it causes concern and requires

caution on the part of the test designers. At present, in lieu of being advocated as an ideal integrative test, the cloze test has returned to a more appropriate status as one of a number of assessment procedures available for testing reading ability (Brown, 2004).

The **multiple-choice format**, though criticized in various aspects, remains a highly popular test task which has been employed until to the present day. Every multiple choice item consists of a **stem** (the beginning of the item) and a number of answer **options** which four options are the most common. There is only one option which is correct and it is called the **key**. The incorrect options are called **distractors** which are used to distract the less capable test-taker from the key. Multiple-choice format can be accompanied with impromptu reading in order to check reading comprehension. This kind of test is fundamentally constructed based on requirements of effective reading strategies: skimming for the main idea, scanning for details, guessing word meanings from context, inferencing and using discourse markers, etc. Many famous and standardized tests like TOEFL rely heavily on this kind of testing technique for testing reading comprehension. The multiple-choice format has its strengths in the practicality of test administration and the objectivity of scoring. However, good multiple-choice items are known to be hard to construct and could be highly time-and labor-intensive to write. Multiple-choice testing faces the criticism that it tests solely the recognition knowledge; guessing may have a considerable but unknowable effect on test scores; washback may be harmful and cheating may be facilitated (Hughes, 2003).

Given all the above-mentioned testing techniques, the application of each is largely dependent on the purpose and type of the language test in question. In this study, a multiple-choice format is chosen as the reading test task. The reasons are:

1. While there are a number of criticisms of a multiple-choice format, recent research works reveal that multiple-choice is still a favorable alternative for language testing. Aside from the easy and reliable scoring, there are also a number of advantages that are worthy of consideration. Nitko (1983:193) cited that multiple-choice items can be used to test a greater variety of instructional objectives. Osterlind (1998:163) specified that multiple-choice items offer more

flexibility for assessing diversity of content and psychological processes than can be gathered from other item formats. Chatterji (2003:181) contended that the common perception that written structured-response items tend to measure only low levels of learning can be dispelled by skilled and creative use of the multiple choice format. In addition, multiple-choice items are more versatile than the other formats in their ability to tap a wide variety of cognitive levels, ranging from simple recall to more in-depth interpretation, application, complex generalization, or problem-solving skills (p.181). In Mohtar (2003:177,183), suggestions for constructing good multiple-choice questions are provided. Among them are:

- a) selecting a suitable passage that contains all the elements needed according to the objectives;
- b) choosing a passage which will provide enough questions according to the cognitive domains;
- c) getting passages of a reasonable length that are at the same time interesting;
- d) getting a passage which contains enough information that can be exploited;
- e) avoiding texts that contain too many difficult structures and words that will hinder reading;
- f) avoiding topics about which questions can be answered using common sense;
- g) constructing distractors which can be found in the passage and are similar to the correct answer and yet are incorrect and,
- h) constructing distractors which are attractive enough to students yet not the best option.

The above-mentioned advices are well taken into account when the RT-ECPM test is constructed and the multiple-choice format helps in tapping various abilities the test aims to measure, i.e. ability to understand main and supporting ideas in the short and long texts, the ability to draw inferences, the

ability to search for required information and the ability to understand information in non-verbal media.

2. Since this study concerns English for Business Purposes, in order to make the test compatible with the context of use and so that it could be truly helpful to the companies in the industry, it must be easy to administer and to arrive at the scores. A multiple-choice format allows the companies to use the test in their daily operations with reliable results as it does not require an expert opinion in rating the test performance. In addition, paper and pencil mode is chosen because most marketing companies do not have the facility to provide and maintain computer-based tests.
3. Employing multiple-choice questions could avoid the problem of ‘muddled measurement’ as named by Weir (1990) where there is a contamination of the measurement of one skill by the involvement of other skills at the same time. As echoed by Urquhart and Weir (1998:158), “In more open-ended formats for testing reading comprehension, e.g. short-answer questions, the candidate has to deploy the skill of writing. The extent to which this affects accurate measurement of the trait being assessed has not been established. Multiple-choice tests avoid this particular difficulty.”

A test is considered useful when it answers the requirement demanded of a test. A certain set of criteria exists to evaluate the usefulness of a test. To gain insights on the usefulness of a test, the criteria are reviewed in the next section.

### **Test Usefulness**

The most important consideration in designing a language test is its usefulness (Bachman and Palmer, 1996). According to Bachman and Palmer, test usefulness can be defined in terms of six test qualities:

1. **Reliability** concerns the consistency of the test scores over repeated administrations. Inconsistency is the variation in test scores that is due to factors other than the construct the researcher aims to measure. In designing and developing language tests, a researcher will always try to minimize variations in the test task characteristics that are not motivated by the way

in which the researcher has defined the construct and target language use tasks (Bachman and Palmer, 1996).

2. **Construct validity** pertains to the meaningfulness and appropriateness of the interpretations that a researcher makes on the basis of test scores. In other words, it refers to the extent to which a test measures the underlying ability the test is supposed to evaluate. Test validation is, therefore, an ongoing process to provide information on whether a particular interpretation of test scores is justified.
3. **Authenticity** is defined as the degree of correspondence of the characteristics of a given language test task to the features of target language use task (Bachman & Palmer, 1996). In English for Specific Purposes testing, authenticity of the test tasks is considered highly crucial. Performance on the task would be interpretable as evidence of the test takers' ability under investigation when the test tasks are as authentic as possible with the target language use in the target language situation. In this research study, this quality of test usefulness is highlighted.
4. **Interactiveness** refers to the extent and type of involvement of test taker's individual characteristics in accomplishing a test task. According to Bachman & Palmer (1996), the individual characteristics that are most relevant for language testing are the test taker's language ability (language knowledge and strategic competence, or metacognitive strategies, topical knowledge and affective schemata).
5. **Impact** refers to various ways in which a test use affects society, an education system, and the individuals within these (Bachman and Palmer, 1996). Impact operates at two levels: a macro level which pertains to the societal or educational system in general and a micro level which is relevant to individuals who are affected by a particular test use.
6. **Practicality** pertains to the practical issues in developing and administering tests, e.g. time, available resources, etc. It can be defined as the relationship between the resources that will be required in the design, development, and use of the test and the resources that will be available for these activities.

Practicality is one of the key considerations to the ways in which the test will be implemented, developed and used.

### **Test Development**

Alderson (2000:29) characterizes a number of implications for testing and assessing reading from current reading research studies. Among them, some key implications are:

1. Reading might be tested within a content-focused battery, i.e. texts that attract readers' interest or that relate to their academic background, intellectual level and so on.
2. Students should be encouraged to read longer texts and tasks should attempt to bring about the enjoyment experienced. Tasks should be able to be completed in the allotted time. They should not be too difficult to discourage the students.
3. Background knowledge should be recognized as influencing comprehension. Every attempt should be made to allow background knowledge to facilitate the performance rather than allowing its absence to inhibit performance.
4. Reading speed should not be measured without reference to comprehension. He asserts that at present comprehension is all too often measured without reference to speed. Timed reading, especially in computer-based test settings, might prove to be useful.
5. Test-writers should avoid the dangers of 'muddled measurement'. This could occur in the case of integrated testing such as testing of reading and writing skills at the same time.

A framework of test method facets proposed by Bachman (1990) is adopted in this study. They are:

a) Facets of the testing environment

These facets refer to the familiarity of the place and equipment used in administering the test, the personnel involved in the test, the time of testing and the physical conditions.

b) Facets of the test rubric

These facets specify how test takers are expected to proceed in taking the test. So they include the test organization, time allocation and instructions.

c) Facets of the input

These facets refer to the specification of input format and nature of language used including length, propositional content, organizational and pragmatic characteristics.

d) Facets of the expected response

Similar to the facets of the input, format, nature of language expected to be produced, length, propositional content, organizational and pragmatic characteristics are specified. Possible restrictions on response are also considered.

e) Relationship between input and response

The relationship between input and response in language tests can be classified into three types: reciprocal, nonreciprocal and adaptive. In reciprocal relationships, the two distinguishing characteristics are 'interaction' (the situation when the language used by the sender at any given point in the communicative exchange affects subsequent language use) and 'the presence of feedback'. In a nonreciprocal relationship, there is no interaction between language users. In adaptive relationships between input and response, the input is influenced by the response but without the feedback that characterizes a reciprocal relationship. In an adaptive test, the particular tasks presented to the test taker are determined by his/her response to previous tasks. An example is the listening and structure sections in the computer-based Test of English as a Foreign Language (TOEFL-CBT).

Apart from the above-mentioned test development procedure that can be applied to all general and specific purpose tests, there are certain considerations that make language specific purpose tests different from their general counterparts. A brief review on this issue follows in the next section.



### 3. Test of English for Specific Purposes

The main drive behind the introduction of English for Specific Purposes (ESP) was practical rather than theoretical (Clapham, 1996). With the rapid increase of economic growth, education and technology, there has been an increasing number of people around the world who need to learn English for clearly defined reasons such as for educational purpose (e.g. reading academic textbooks, etc.) or for transacting business (Hutchinson and Waters, 1987). Although there had been some awareness from the 1920s of the fact that learners in different jobs needed different kinds of language (Widdowson, 1983), the ESP movement only came into existence in the 1960s. In its early stages, ESP researchers focused on register analysis – the analysis of sentence-level grammatical and lexical features to see what the distinctive features were between texts in different subject areas.

In recent years, Language for Business Purposes has become a major growth area in Language for Specific Purposes and has brought in many of the pedagogical consequences as described by Dudley-Evans and St John (1998). According to Swales (2000), the causes of this growth are multiple. First, this area has been under-researched in comparison to science or technology. Second, internationalization has drawn many business people into bilingual and multilingual occupational settings. Third, the dynamism of business world has made all the traditional business language teaching materials increasingly obsolete. Therefore, the call for more comprehensive and updated study in Language for Business Purposes has become apparent. Dudley-Evans and St John (1998:72) note an important difference between English for Academic Purposes (EAP) and English for Business Purposes (EBP) as:

“EAP operates within a world where the fundamental concern is the acquisition of knowledge by individuals, while in EBP the purpose is not centered on the learner as an individual but as a member of transactional world where the fundamental concern is the exchange of goods and services.”

Douglas (2000) states two key reasons to implement specific purpose tests instead of general purpose ones: 1) language performances vary with contexts and

2) specific purpose tests are precise. Douglas (2000:19) defines specific language tests as:

“A specific purpose language test is one in which test content and methods are derived from an analysis of a specific purpose target language use situation, so that test tasks and content are authentically representative of tasks in the target situation, allowing for an interaction between the test taker’s language ability and specific purpose content knowledge, on the one hand, and the test tasks on the other. Such a test allows us to make inferences about a test taker’s capacity to use language in the specific purpose domain.”

In addition, Douglas asserts that specific purposes language tests are indeed necessary, reliable, valid and theoretically well-motivated. He highlights two aspects of ESP testing that distinguishes it from English for General Purpose (EGP), i.e. authenticity of task and interaction between language knowledge and specific purpose content knowledge. In EGP testing, background or content knowledge is perhaps seen as a variable contributing to a measurement error and should be minimized at best. But in ESP testing, background knowledge is a necessary part of the concept of specific purpose language ability.

However, the number of works in this area is still very limited. Alderson and Bachman address the scarcity of studies in the ESP testing as, “Until recently, there are not many research studies or publications for those who need to assess language for specific purposes. Teachers and testers have had to take what has been produced for teaching purposes, and seek to convert and adapt it for assessment.” (Douglas, 2000:ix). The researcher hopes that this research study could supply another empirical piece of work to the ESP testing field.

### **Reading and Testing English for Specific Purposes**

Johns and Davies (1983) suggest that for reading in ESP, extracting information accurately and quickly is more significant than language details, i.e. understanding the macrostructure comes before language study and that application of the information in the text is of prime importance. Pickett (1986) highlighted the

fact that business communication is much nearer to the everyday language spoken by the general public than any other ESP. He suggests two particular aspects of business communication, i.e. communication with the public and communication within (intra) a company or between (inter) companies. For many businesses, communication with the public is most likely to be in the first language (L1). The Business English that non-native speakers of English need is typically for intercompany and, in international conglomerates, intra-company dealings (Nickerson, 1998). This could be quite true with English for Consumer Product Marketing in Thailand as main players in this field are multi-national companies which hire a substantial number of expatriates and educated Thai staff. Communication to the public who are the ultimate consumers is, however, generally conducted in Thai. English is, therefore, mainly used for intercompany and intracompany dealings particularly in reading. Nevertheless, given today's wide-ranging activities and dynamic situations, business communication could vary from one company to another depending on the structure and nature of the business setup.

When companies or individuals would like to engage in a test in business language, the choices are basically limited. A business test that is internationally well-known is Business Language Testing Service (BULATS) provided by the University of Cambridge (ESOL examinations), Universidad De Salamanga, Alliance Francaise, Goethe Institut and Association of Language Testers in Europe (ALTE) (University of Cambridge ESOL Examinations, 2006). BULATS is closely linked to the Council of Europe's Common European Framework for modern languages. BULATS has different tests for different skills and offers both paper-and-pencil and computer-based modes. An outline of the reading test offered by BULATS consists of 10 sections with 60 questions and lasts for 60 minutes. The reading tasks vary from gap-filling, multiple choice, matching and error correction tasks. Text types include notices, messages, timetables, adverts, leaflets, graphs, short to medium texts to check grammar and vocabulary and long texts from newspapers and magazines. BULATS addresses general business language use and has no particular focus on any industry.

Apart from BULATS, the reading section of well-known general and academic standardized tests are also reviewed. The reviewed tests are Test of

English as a Foreign Language (TOEFL), International English Language Testing System (IELTS) and International Second Language Proficiency Ratings (ISLPR). A brief summary of the findings is that while TOEFL and IELTS are rated quite high in terms of reliability and practicality, ISLPR's advantages lie in its construct validity, authenticity, interactiveness and positive washback effect.

Before a test is developed, target language use in the target situation must be identified. The procedures available for identifying target language use are listed below.

### **Identifying Target Language Use**

Needs analysis is more fundamental in Business English than in other ESP as learners' needs can be much more varied and the spectrum of language and skills are less predictable (Dudley-Evans and St John, 1998). In finding needs and constructs for a language test, Urquhart and Weir (1998) suggest specification of constructs through target situation analysis of the target population's reading activities, theoretical literature review of reading processes, studies concerning the componentiality of reading and document analysis. Hutchinson and Waters (1987) identify various ways of gathering information about needs, i.e. questionnaires, interviews, observation, gathering texts and informal consultation with subject experts. In this study, apart from gathering data from the subject experts, the process to identify the target language use is accomplished through the other two means which are corpus-based study and content analysis.

#### **1. Corpus-Based Study**

A corpus could be defined as a large collection of authentic written or spoken texts that are gathered in electronic form according to a specific set of criteria (Bowker & Pearson, 2002). Four key terms are 'authentic', 'electronic', 'large' and 'specific criteria'. Texts in corpora are naturally occurring running language so they are presented in authentic forms. With technological advancement, electronic texts could be collected and updated quickly and effectively. This enables a large collection of texts for a study. Before a corpus is compiled, a certain set of criteria must be decided to assure that the corpus consists

of texts that well represent the language under study. Generally a large corpus is preferred to a small one and full texts are also more desirable than abstracts. If data come from different sources or subject experts, the data tend to be more valid for the study. Basically, a corpus-based study could be helpful in identifying the vocabulary and language focus that a learner or test-taker would need to master.

Corpus-based study is highly beneficial for learning Language for Specific Purposes (LSP). Corpus analysis tools, in general, could create two main features, i.e. word list and concordance lines. Word list provides a corpus's statistics such as the number of words, sentences, types and frequency of a particular word under study. Concordance lines show the occurrences of a selected word in its immediate context, allowing users to study in depth and detect a significant pattern and its collocation. As LSP is the language used to discuss specialized fields of knowledge, it does not have only specialized vocabulary but also specialized collocational or stylistic features that differ from Language for General Purpose. With corpus analysis tools, frequency lists could be produced, enabling learners to focus on those words that are presented at the top positions of the list. In addition, the corpus helps to identify the potentially interesting terms belonging to the LSP under study. Aside from learning the words, collocations of such words, grammatical behavior of key terms and styles in LSP could also be investigated (Bowker & Pearson, 2002). In this research study, a 114,582-word corpus of English used in Consumer Product Marketing is compiled to identify the target language use and to develop the reading test.

## **2. Content Analysis**

Content analysis is another means that could be employed in the target language use identification process. Content analysis is a research tool utilized to determine the presence of certain words or concepts within texts or sets of texts. Content analysis is done by quantifying and analyzing the presence, meanings and relationships of words and concepts, then inferences can be made about the messages within the texts. Texts include books, essays, newspaper articles, historical documents, scripts of speeches, etc. Content analysis is currently used in a number of fields such as marketing and media studies, ethnography, cultural

studies, sociology, political science, psychology and so forth. To conduct a content analysis on a text, the text is coded into categories on a variety of levels - word, phrase, sentence, or theme. There are two key methods in content analysis (Carley, 1992): *conceptual analysis* and *relational analysis*. Conceptual analysis can be thought of as establishing the existence and frequency of concepts – most often represented by words or phrases in a text. Conceptual analysis begins with identifying research questions and choosing a sample. Once chosen, the text must be coded into manageable content categories. By reducing the text to categories consisting of a word or set of words or phrases, the researcher can focus on and code for specific words or patterns that are indicative of the research question. Another method of conducting a content analysis is relational analysis. Relational analysis goes one step further than concept analysis by also examining the relationships among concepts in a text. It begins with identifying concepts presented in a given text and seeks to go beyond presence by exploring the relationships between the concepts identified. Relational analysis has also been termed *semantic analysis* (Palmquist, Carley, & Dale, 1997). In other words, the focus of relational analysis is to look for semantic, or meaningful, relationships. The advantages of using content analysis are that it could provide valuable insight into complicated issues through analysis of texts and allow for both quantitative and qualitative operations. However, some disadvantages lie in the fact that such an analysis could be extremely time-consuming and subject to human errors in coding while it can also be difficult to automate or computerize the data found. In this study, content analysis is done on a number of selected marketing and language textbooks to help identify the themes and proportion of tasks. The data are then used in reading test development.

In this study, apart from test development, the objective is to study the relationship between performance in the test and the selected test-takers' variables. An overview on test-takers' variables is presented in the next section.

#### 4. Test Takers' Variables

The four categories that have influences on test scores are communicative language ability, test method facets, personal characteristics and random measurement error (Bachman, 1990). In Bachman's list, the test takers' characteristics consist of cultural background, background knowledge, cognitive abilities, sex and age (Bachman, 1990:350). Other kinds of characteristics which are discussed in the Second Language Acquisition (SLA) literature are previous exposure to English in the home country and in English-speaking countries (if any), motivation orientation to learn English (Gardner and Lambert, 1972) and monitoring (Krashen, 1985).

Skehan (1989) emphasizes four main areas of test takers' characteristics: language aptitude, motivation, learning strategies and cognitive/learning styles. **Language aptitude** has a long history in language teaching and learning. The most significant development has been the development of the Modern Language Aptitude Test (MLAT) (Carroll and Sapon, 1959). This device serves to measure the phonemic coding ability, the capacity to code sounds, grammatical sensitivity, inductive language learning ability and associative memory. **Motivation** has been the other major area for research into individual differences. The most influential approach has been done by Robert Gardner. Originally, Gardner distinguished between two motivational orientations, integrative and instrumental. The former concerns learners who want to learn a language to enter the community of its speakers, while the latter regards language as a potential tool which may be useful in the future. Currently many research studies have largely expanded the views on what motivates language learners. **Learning Strategies** concern the use of metacognitive strategies in solving a particular learning problem. **Cognitive and Learning Styles** refer to the preferable ways learners exercise to acquire and represent language. The major style difference which has been highlighted in the language learning field is the field dependent versus field independent contrast. The former style concerns people who are analytical in approaching the problem and tend to break the whole into component parts before tackling it. The latter is more

holistic, using a broad view in solving the problems at hand. Research suggests that the field independent style correlates moderately with language learning success.

According to Kunnan (1995:1) test takers' characteristics could also include personal attributes such as age, native language, gender, educational characteristics such as background knowledge, previous exposure to English as well as cognitive, psychological and social characteristics such as learning strategies and styles, attitude and motivation, aptitude and intelligence, field dependence and independence, extroversion and introversion and anxiety, personality and risk taking. A closer look at background knowledge, language proficiency and cognitive capacity is presented in the following section.

### **Background Knowledge and Language Proficiency**

The role of background knowledge in language comprehension has been formalized as schema theory (Bartlett 1932, Rumelhart and Ortony 1977, Rumelhart 1980 in Carrell and Eisterhold, 1983). The fundamental concept is that any text either spoken or written only provides directions for listeners or readers as to how they should retrieve or construct meaning from their own, previously acquired knowledge. This previously acquired knowledge is called the reader's background knowledge and the previously acquired knowledge structures are called **schemata**. According to schema theory, comprehending a text is an interactive process between the reader's background knowledge and the text. Schema, also called the 'building block of cognition' (Rumelhart, 1980), is a significant notion in understanding the knowledge structure of the brain. What one knows exists as schemata hierarchies and this prior knowledge is activated when one encounters new information. Rumelhart (1980:33) defines schema theory as:

“A schema theory is basically a theory about... how knowledge is presented and about how that representation facilitates the use of the knowledge in particular ways. According to schema theories, all knowledge is packaged into units...[called] schemata. Embedded in these packets of knowledge is... information about how this knowledge is to be used. A schema, then is a data structure for representing the generic concepts stored in memory.”



According to Carrell (1984a,b), there are two types of schema: **content** and **formal**. Content schema refers to background knowledge of the world and formal schema concerns background knowledge of rhetorical structure.

The effect of background knowledge on reading comprehension has always been a central theme in EFL reading research. Over the past decades, there have been several studies into the effect of background knowledge on ESP test performance. According to the three articles by Alderson and Urquhart (1983, 1985a, and 1985b) which concerned the students attending English classes in Britain in preparation for going to British universities, the result was quite interesting. In each study, Alderson and Urquhart compared students' scores on reading texts related to their own field of study with those on texts in other subject areas. They found that science and engineering students taking the technology module test did better than the business and economics students. However, when they took the test in liberal arts, they achieved similar scores as liberal arts students although their language proficiency was lower. And when they took the test in the social studies module, there was no significant difference between their scores and those of the business and economic students. Alderson and Urquhart concluded that background knowledge had some effect on test scores. However, since the background knowledge effect on part of the arts students did not support the contention, the result remained inconclusive and they suggested future studies that will take account of linguistic proficiency and other factors as well.

Koh (1985) had similar results when she conducted her study at Singapore University with three groups of students – two in Science and one in Business Studies. Cloze tests and the analysis of variance are used to estimate the effect of background knowledge. The findings were that though there was an interaction between student groups and tests, the students did not always do best in their own subject areas. The business students had the highest scores on the Science text while one of the science groups, which was the group with the highest language proficiency, did consistently better than the other groups for all the tests which were about Business, History, Politics and Science. Shoham, Peretz, and Vorhaus (1987) reported similar results when they conducted a study at Ben-Gurion

University in Israel. They found that while students in the biological and physical sciences did better at the scientific texts, the humanities and social science students did not do better on the test in their own subject areas. Clapham (1996:10) pointed out that there seemed to be a tendency for science students to perform better than other students at science-based tests, but to perform as well as the humanities students on humanities-based ones. The similar comment was given by Alderson (2000:62) indicating that non-specialist texts in arts and humanities, and to some extent in social sciences, will be easier to process for more people of equivalent educational background than scientific texts. More people will have read fiction, popular journals, and advertisements than technical or scientific texts (*ibid*). These studies could shed light on the possibilities for future research.

Tan (1990) investigated if familiarity with test content or level of language proficiency was the best predictor of ability in reading comprehension of the undergraduates at the University of Malaya. He found that both knowledge of the subject area and language proficiency could predict the comprehension of a discipline-related text but the language proficiency level was the better predictor. This appeared to be against the findings in the prior works by Johnson (1981) and Floyd and Carrell (1987), who found that background knowledge had more effect on test scores than did the syntactic complexity of the passages. However, Clapham (1996) argued that there is no direct relationship between syntactic complexity and the level of language proficiency. In addition, effects of background knowledge and syntactic complexity must vary according to the level of the students, the amount of background knowledge required in the passage and the level of difficulty of the texts.

There is also evidence that for second and first language learners, background knowledge, whether related to culture, content or formal structure, plays an essential role in reading comprehension, though cultural and content knowledge may be more important than knowledge of form (Clapham, 1996:46). Her statement is derived from prior studies by various researchers. Johnson (1981), Hudson (1982), Laufer and Sim (1985) and Floyd and Carrell (1987) suggest that cultural and content background knowledge is more important than syntax. This could be the case for advanced level learners, but at lower levels of language

learning, knowledge of syntax might be expected to have a much stronger effect as Bernhardt (1991:170) says:

“As a reader’s linguistic knowledge grows, it begins to override knowledge-driven inferencing. In other words, a reader begins to rely more on the language and less on what he/she thinks the language contains.”

From her study in the development of IELTS: A study of the effect of background knowledge on reading comprehension, Clapham (1996) conducted a large scale study with 842 non-native English speakers, most of whom were about to start undergraduate or postgraduate studies at English medium universities. She found that both students’ field of study and familiarity with the subject area significantly related to test scores. However, there was a stronger relationship between the level of English language proficiency and the test scores. An interesting piece of data was that students did not appear to be affected by background knowledge until they achieved scores of over 60% on the grammar test which all subjects needed to take. Similarly, students with grammar scores of over 80% appeared to make less use of background knowledge than the intermediate students. She commented that the low proficiency students could not take advantage of their background knowledge while the high proficiency students did not need to rely on the background knowledge as their language proficiency had already facilitated their understanding. These led her to conclude that test takers with intermediate language competence, or the threshold level, will benefit the most from their background knowledge. Those with low language competence as well as those with high language competence could not benefit as much.

From the above-mentioned studies, it can be concluded that background knowledge and language proficiency have long been investigated in terms of their effect on the test performance in ESP tests. There are a number of advocates for background knowledge and at the same time, there are also a number of researchers who believe that language proficiency plays a more important role. In this research project, these two variables will be further investigated as to whether they affect test performance. The level of achievement in a formal content area study, in this

case – the marketing subject at a university, is therefore used in the operational definition of background knowledge. Similarly, the level of achievement in the Business English courses is operationally defined as the level of language ability. The effect of these two variables on ESP test performance will be investigated in this study.

Apart from the background knowledge and language proficiency, there are other variables that could affect a test-taker's performance in a reading test. One of the variables in focus is the cognitive or academic ability of the test takers. Prior research studies in this area are reviewed in the next section.

### **Cognitive Ability Playing a Key Role in Reading Tests**

Many research studies are devoted to finding out the relationship between the performance in a reading test and the level of cognitive ability. Thorndike (1917) has long posited that reading is reasoning, particularly tests that require high-level processing and the ability to reason of the test takers could facilitate the test taking tasks in a language test. Earlier research studies indicated that language ability strongly relates to overall cognitive and academic skills (Cummins, 1979). Performance in the reading tests is found highly correlated with intelligence level (Chastain, 1969; Genesee, 1976; and Ekstrand 1977). Genesee (1976) found that scores on IQ tests, in turn, correlate highly with scores on academic achievement tests. For Oller and Perkins (1978:413), the 'g' factor (general intelligence) of cognitive ability is viewed as identical with the 'g' factor of language ability. Cummins (1979) equates his Cognitive/Academic Language Proficiency with Oller and Perkin's 'g' factor. This is supported by Carver (1974) that a reading test is always a part of a reasoning test particularly on the higher-level processing which is beyond the word and sentence level, so cognitive abilities are, therefore, involved in performing the test. Carver (1974) found in his study that a high correlation of .80 exists between reading tests and intelligence tests. In more recent works, Kattan (1990) found a correlation of .71 between the results of the test for English majors and their grade point average (GPA). Berman (1991) reported a .60 correlation between English reading comprehension tests and Hebrew reasoning tests. Such a correlation is considered moderately high and present even at a discrete linguistic

level. Littlemore (2001) stated that although there are many ways in which learners can vary (for example, age, gender, learning style, and motivation), intelligence is often referred to as one of the most significant predictors of language learning success. Based on the mentioned research works, overall academic achievement which is a form of cognitive ability manifestation could be a potential predictor of the performance in the reading test.

### **Rationale for Selecting the Variables as Predictors**

Based on the review of related literature, three test takers' variables namely **formal content study** or background knowledge, **English language attainment** and **overall academic achievement** are selected for investigation on their predictive abilities of the performance in Reading Test of English for Consumer Product Marketing (RT-ECPM). The rationale for selecting them as the predictors in this study are presented below:

#### **1. Formal Content Study or Background Knowledge**

It is clear from the above-mentioned research studies that background knowledge plays a key part in the reading process particularly in the ESP area. In English for General Purpose testing, background or content knowledge is perhaps seen as a confounding variable contributing to a measurement error and should be minimized at best. But in ESP testing, background knowledge is a necessary, integral part of the concept of specific purpose language ability (Douglas, 2000). In this study, formal content study of marketing is defined as the subject-matter knowledge that could influence performance in a reading test.

#### **2. English Language Attainment**

English language ability has a clear relationship with the reading performance in a test. A reader's level of English language attainment at university could have a powerful predictive power on reading test performance.

### **3. Formal Content Study and English Language Attainment**

Although it may be accepted that both the readers' levels of background knowledge and second language ability have effects on reading performance, language ability could also in turn influence the use of prior background knowledge based on the linguistic threshold level theory. There has been a disagreement about the relative importance of these two factors in reading comprehension (Clapham, 1996). In some of the early research based on schema theory, it was claimed that the content of a passage had more effect on learners' comprehension than the syntactic complexity of a text (Johnson, 1981). It, however, is not in accord with the short circuit hypothesis or linguistic threshold level that language ability appears to have much stronger effect on students' score than background knowledge. According to Clapham (1996), the comparative importance of the variables seemed to depend on the specificity of the tests. When the test is highly subject-specific, background knowledge contributes to a higher proportion and good language ability is no longer sufficient for text comprehension. She concludes that the effect of background knowledge on reading comprehension, therefore, depends not only on the ability level of the students, but also on the specificity of the reading passages. So, the issues in this area are not solely to understand the comparative importance of these two variables but also the interaction effect that exists. In this study, the relative effect of background knowledge and language ability interacting with each other on the reading test performance will be investigated.

### **4. Overall Academic Achievement**

The purpose of including the test takers' overall academic achievement as the third variable in the study is that while background knowledge and language ability could interact with each other, the academic ability of the test takers could be the moderator variable.

In summary, from the literature review, these three variables could be the predictors of the reading test performance and when they are present together, they could have varying degrees of effect. In the past, each of them alone has been

studied with regard to the effect on reading test performance or at most two of them: background knowledge and English language ability. It will be insightful to see when background knowledge, language attainment and overall academic achievement are to be studied simultaneously. Therefore, this study aims to investigate the comparative and predictive ability of these three key variables on performance in an ESP test. It is interesting to investigate if the linguistic threshold theory holds true and if there is a meaningful correlation between each of the variables with the test performance as suggested by prior research studies. Besides the test-takers' variables, what is also important and could affect their performance is the text that the test-takers need to tackle. A brief review on the text variables is given in the following section.

## **5. Text Variables**

Apart from the readers' variables, the variables that could also have an effect on the reading test performance in ESP are text variables. Many studies have revealed that text variables could also be major factors affecting the reading performance in the ESP/ESL area. These factors range from aspects of text content to text types or genre, text organization, sentence structure, lexis, text typography and the medium in which the text is presented.

### **Text Topic and Content**

Most studies of reading tests show that the choice of text has a marked effect. Subject-related texts might discriminate against individuals who possess less background knowledge in a particular field. Empirical studies indicate that non-specialist texts in arts and humanities will be easier to process for people in general. This is probably due to the fact that people are more likely to read literature and contemporary journalism than to read scientific or technical texts.

### **Text Type and Genre**

It is clear that certain topics are associated with certain text types. Text type and genre reflects styles or features that make one text different from another (Alderson, 2000). In identifying the target language use in this research project, the

interviews with the subject experts in the industry help reveal the text type and genre. Text types found from the interview were e-mails, product information in labels/catalogues, business news, marketing plans, advertising reviews and sales reports. Each of them is associated with particular features. The information is used in developing the reading test.

### **Text Organization**

Text organization concerns how the paragraphs relate to each other and how the relationships between ideas are signaled, etc. Urquhart (1984) points out that texts organized according to the sequence of events could be read faster and were easier to understand than texts whose temporal sequencing was disturbed. Meyer (1975) distinguishes five different ways in which writers could organize the topics: collection (lists), causation (cause and effect), response (problem-solution), comparison (compare and contrast) and description (attribution). In addition, a text that is coherent is much easier to comprehend than a less coherent text. In contrast, the effects of cohesion on understanding and recall are weak (Hagerup-Neilsen, 1977 and Freebody and Anderson, 1983). The lack of connectives does not seriously damage comprehension. The effect of cohesion is weak because readers can make bridging inferences as cohesion is not a key variable in readability.

### **Text Readability**

Readability describes the ease with which a document can be read. Readability formulas were first developed in the 1920s in the United States. In the early stage, the fundamental assumption of text readability introduced by Thorndike was that words which were encountered frequently by readers were less difficult to understand than words that were rarely appeared (Child, 2003). Therefore, the words were tabulated according to the frequency of their use in general literature and used in a mathematical formula to produce a readability index. From the earliest efforts to today, readability tests have been designed as mathematical equations which correlate measurable elements of writing such as the number of personal pronouns in the text, the average number of syllables in words or number of words in sentences in the text (ibid).



Child (2003) states that there are more than 490,000 words in the English language and another 300,000 technical terms, and it is unlikely that an individual will use more than 60,000 words. An average person probably encounters between 5,000 and 10,000 words in a lifetime. There are three common readability indices, i.e. Gunning Fog Index, Flesch Readability Test and Flesch-Kincaid Grade Index. Costello (2001) describes each type of index as follows:

**Gunning-Fog Index** gives the number of years of education that a reader needs to understand the text. Typically, the Fog Index for technical documentation is between 10 and 15. The Fog Index formula implies that short sentences written in plain English achieve a better score than long sentences written in complicated language.

**Flesch Readability Test** measures readability between 0-100. The higher the score, the easier the text is to understand. The Flesch score is usually relatively low for technical documentation.

**Flesch-Kincaid Grade Index** computes readability based on the average number of syllables per word and the average number of words per sentence. The score in this case indicates a grade-school level, for example, a score of 8.0 means that an eighth grader would understand the document. Standard writing is approximately equal to the seventh to eighth grade level.

Obviously, a readability index does not provide the information as to whether the text is understood or comprehended by its reader. In other words, readability formulas cannot measure how comprehensible a text is. More importantly, they cannot measure whether a text is suitable for particular readers' needs. Judgment will need to be employed by the test designers.

In summary, the text variable plays a key role in a language test. In this study, text types were selected according to the data given by the subject informants and, therefore, text genre follows its type. The readability of the text is also studied and the readability indices are reported in the data analysis section.

In every research study, appropriate statistical treatment is one of the important concerns. In this study, correlation coefficient and multiple regression analysis are employed for the data analysis. An overview of the statistical procedures is presented in the following section.

## 6. Correlation Analysis

In studying the relationship between two variables, a correlation analysis needs to be conducted. Essentially, correlation represents 'go-togetherness' of two sets of variables (Brown, 2005). The degree to which two sets of scores varies together is estimated statistically by calculating a correlation coefficient. The range of a correlation coefficient is between -1.0 to +1.0. The closer the coefficient is to -1.00 or +1.00, the stronger the relationship is. If the sign is positive, the relationship is positive, indicating that high scores of one variable tend to go with high scores of the other variable. If the sign is negative, the relationship is negative, indicating that high scores of one variable tend to go with low scores of the other variable. Correlation coefficients that are at or near .00 indicate that no relationship exists between the variables involved. Correlation coefficients below .35 show only a slight relationship between variables. Correlation coefficients between .40 and .60 are often found in education research and may have theoretical or practical value (Fraenkel and Wallen, 2000:370). However, correlation does not necessarily imply causation. Caution must be exercised in interpreting a correlation coefficient.

Two of the most commonly used correlation coefficients are the Pearson product-moment correlation coefficient and the Spearman rank-order correlation coefficient (Bachman, 2004). To use the Pearson product-moment correlation appropriately, the linear relationship between the two variables is assumed. The other assumptions are that both variables are in interval scales and both of them are normally distributed. The Spearman rank-correlation, on the other hand, assumes only a linear relationship between variables and the data constitute at least an ordinal scale. These two correlations can be interpreted in the same way. The basic difference is in the assumptions they require (ibid).

The relationship between two variables can also be characterized in terms of common or shared variance. It is an interpretation of the correlation in terms of the proportion of variance in one variable that is accounted for by the other. The statistic used is the coefficient of determination which is the square of the correlation coefficient or  $r^2$ . Therefore, a correlation coefficient of .50 produces a

coefficient of determination of .25, meaning 25% of the variance in one variable is accounted for by the other variable.

Apart from correlation analysis, this study concerns a study of predictors of the dependent variable. Multiple regression analysis is the statistical instrument employed for the study. It is presented in the following section.

## 7. Multiple Regression Analysis

The statistical tool which is commonly employed in correlational studies of two or more variables is **regression analysis**. A regression equation allows a researcher to express the relationship between two (or more) variables algebraically. It indicates the nature of the relationship between two (or more) variables. In particular, it indicates the extent to which a researcher can predict some variables by knowing others, or the extent to which some are associated with others (Garson, 2004).

Regression analysis uses sophisticated equations to analyze sets of data and translates them into coordinates on a line or curve. In the past, regression analysis was not widely used because of the large volume of calculations involved. Since spreadsheet applications such as Excel began offering built-in regression functions, the use of regression analysis has become more widespread.

Generally, there are various names for the independent and dependent variables. Independent variables could be called predictors, carriers, inputs or covariates. The dependent variables could be named as predicted variables, response, output or outcome. To study whether a set of variables could be predictors of a certain variable, multiple regression as a statistical method is the most suitable choice. In principle, multiple regression is a statistical method for studying the relationship between a single dependent variable and one or more independent variable. It is one of the most widely used statistical techniques in the social sciences (Allison, 1999). It is the analysis of more than one set of data, which often produces a more realistic projection than simple linear regression. A more complete name for multiple regression is **ordinary least squares multiple linear regression**. 'Least squares' is the method used to estimate the regression equation. 'Ordinary' serves to distinguish the simplest method of least squares

from more complicated methods such as *weighted least squares multiple regression*, *generalized least squares multiple regression* and *two-stage least squares multiple regression*. 'Multiple' means there are two or more independent variables. Linear describes the kind of equation that is estimated by the multiple regression method (ibid).

### **Assumptions for Multiple Regression**

Before using multiple regression to analyse a set of data, the following assumptions need to be met (Garson, 2004). A check on these assumptions was conducted and discussed in Chapter III on page 87.

- 1. Proper specification of the model** One assumption is to include relevant variables into the model and exclude the irrelevant ones from the specification. A proper model needs to contain sufficient parameters to adequately describe the behavior of the data. Two primary causes of specification error are: a) omitting independent variables that should be in the model and, b) failing to account for the relationships that are not strictly linear, i.e. where the relationships need to be described by curves, which often require the use of additional parameters. Two main effects of the specification error are that the error mean square will be inflated as an effect from the omitted parameters and the estimated coefficients are biased estimates of the population parameters (Freud and Wilson, 1998).
- 2. Linearity** Regression analysis assumes linearity in relationship. Before analyzing data with multiple regression, a study on whether the relationship between the independent variables and dependent variables is linear or not could be done by using a **Scatter plot** command. When nonlinearity is detected, regression smoothing techniques and nonparametric regression exist to fit smoothed curves in a nonlinear manner. More details regarding the regression smoothing techniques and nonparametric regression are presented on page 57.
- 3. Interval or ratio data** They are required in multiple regression. It is, however, common to use ordinal data in multiple regression by using dummy variables.

4. **Non-recursivity** The dependent variable cannot be a cause of one or more of the independent variables. This is called the non-simultaneity or absence of joint dependence.
5. **No overfitting** Overfitting includes chance variations in the data rather than true underlying relationships. It occurs when too many variables are included in the model as an attempt to increase R-Square (Garson, 2004).
6. **Absence of perfect multicollinearity** Multicollinearity is the intercorrelation of independent variables. It is the situation when independent variables are linear functions of each other such as the weight in kilograms and the weight in ounces or age and year of birth, etc. It can also occur when the researcher creates dummy variables for all values of a categorical variable rather than leaving one out and when there are fewer observations than variables. The method to check if a multicollinearity problem exists can be done either by using a **correlate/bivariate** command between independent variables or a **Statistics/Covariance Matrix** or **Statistics/Collinearity Diagnostics** which will produce tolerance, a Variance Inflation Factor (VIF) and a Condition Index. If the independent variables are not independent of each other, multicollinearity would be present which will make the result in an F-test and a t-test not in accord with each other. A caution is that even when a multiple coefficient of determination is high or the F-test is high, it does not eliminate the chance of multicollinearity. A common way to judge the seriousness of the multicollinearity problem is to examine all the bivariate correlations among the independent variables. And because it can involve more than two variables at a time, a very useful statistic in this case is the tolerance statistic which can be calculated for each independent variable. Tolerance values range between 0 and 1. High tolerance values indicate low multicollinearity and low tolerance values indicate high multicollinearity. According to Garson (2004), tolerances that fall below .20 deserve concern on the part of the researcher. Another equivalent multicollinearity diagnosis is Variance Inflation Factor. This is actually the reciprocal of the tolerance ( $1/\text{tolerance}$ ). Tolerances below .20 or Variance Inflation Factors above

4.00 should alert a researcher of a multicollinearity problem. The ways to deal with this problem are, for example, to eliminate the independent variables that have high relationship, to delete the least important variable in the equation, to introduce new variable to replace it, to use centering (subtracting the mean from each case) or to increase the sample size (standard error decreases when the sample size is increased).

- 7. Underlying distribution** The same underlying distribution is assumed for all variables. If an independent variable has a different underlying distribution compared to the dependent variable, then a unit increase in the independent will have nonlinear impacts on the dependent variable. For example, when an independent variable has a bimodal distribution (having two different peaks) and the dependent variable has a normal distribution, an s-shaped scatter plot will be obtained, not a linear form (Garson, 2004). When encountering this problem, transforms are sometimes used to handle the situation. For instance, a positive skew distribution could be corrected by the square root, logarithmic and inverse ( $x = 1/x$ ) transforms while a negative skew distribution could be solved by power transformations. Such transforms, however, lose the information about the original scale of the variable as the transforms have forced all variables to a normal distribution (ibid).
- 8. Homoscedasticity** This term means the 'same variance'. The variance of residual error should be constant for all values of the independents. If not, separate models may be required for the different ranges. Homoscedasticity means that the variance of errors is the same across all levels of the independent variable. The method to check if the homoscedasticity assumption is violated or not is to plot the residuals against the predicted values of  $y$  and conduct a visual inspection. There should be a uniform degree of scatter regardless of the predicted values. Violation of homoscedasticity can make ordinary least squares inefficient and can produce bias in standard error estimates. There are three ways to deal with heteroscedasticity: a) variance stabilizing transformations, b) weighted least squares and c) corrected standard errors. Variance stabilizing

transformations, though effective in reducing heteroscedasticity, often have other undesirable properties. If the researcher is confident about the form of the heteroscedasticity, weight least squares is a good method to correct it. Otherwise, the corrected standard error is the best method (Allison, 1999).

- 9. Additivity** Additivity is the assumption that for each independent variable X, the amount of change in Y associated with the unit increase in X, holding all other independent variables constant, is the same regardless of the values of the other independent variables in the equation (Berry and Feldman, 1985). However, independent variables that are not completely free from one another are quite common. In cases where an interaction effect exists, the interaction terms may be created as additional variables in the analysis. Interaction effects are sometimes called *moderator effects* because they change the relation between two original variables or moderate the original relationship. Interaction terms should be added only when there is a theoretical reason to do so as it could overfit the model and increase the chance variations in the data.
- 10. No outlier** Outliers are data points which lie outside the general linear pattern of which the midline is the regression line (Garson, 2004). A boxplot could be employed to detect outliers. To deal with outliers, the researcher may remove them from the analysis and endeavour to explain them on a separate basis.

After the assumptions are considered, there are steps to be followed when a multiple regression analysis is carried out. The steps are presented in the following section.

### **Criteria on Selecting Variables to Include in Multiple Regression**

The criteria for selecting variables start from studying the literature review to see if the independent variables chosen were found to have an effect on the reading performance in a test. The model used in this study involves three key independent variables which concern formal content study, English language attainment and overall academic achievement. According to the related literature review, among all variables that could have effects on the performance on ESP tests, these three variables are found highly correlated with the variability in the dependent variable which is the test performance in this study. The rationale for selecting the three variables is presented on page 43. Apart from the literature review, the following procedures are carried out in selecting variables to include in the study (เพ็ญแข สิริวรรณ, 2546).

- 1) Check if all variables included are interval/ratio data. For categorical or ordinal variables, they need to be modified into dummy variables first.
- 2) Check if the dependent variable is normally distributed by using the SPSS function: **Analyze/ Descriptive Statistics/Explore/ Plots.**
- 3) Check if each independent variable has a relationship with the dependent variable by using the SPSS function: **Graph/Scatterplot.** Only the independent variables that have relationships with the dependent variable should be included.
- 4) Formulate the regression equation using the SPSS function: **Statistics/Regression/Linear/Method.** There are three regression models in multiple regression, namely, standard or simultaneous regression, hierarchical regression and stepwise regression (Cooke & Steed, 2000). These models are different in the ways they treat the overlapping variability due to the correlation of the independent variables and in terms of the order of entry of the independent variables into the equation. The three methods are described below.
  - a) **The standard or simultaneous regression** puts all independent variables into the regression equation at once with the purpose of examining the relationship between the whole set of predictors and the dependent variable.



b) **The hierarchical regression** determines the order of entry of the independent variables based on theoretical knowledge.

c) **The stepwise regression** enters the number of independent variables and the order of entry by statistical criteria generated by the stepwise procedure.

There are three basic approaches:

1) Forward Selection

The approach starts by choosing the independent variable which explains the most variation in the dependent variable. Then choose a second variable which explains the most residual variation, and then recalculate the regression coefficients. The process keeps going on until there is no variable significantly explaining residual variation.

2) Backward Selection

The approach starts by including all the variables in the model, and by dropping the least significant, one at a time, until only significant variables are left.

3) Mixture of the two

The approach, while performing a forward selection, drops variables which become no longer significant after the introduction of new variables.

As the review of related literature in Chapter II indicates that all the three independent variables have the potential to be predictors of the reading test scores, the standard or simultaneous regression method was employed in the data analysis. In the SPSS terms, the 'enter' method is used and all independent variables are entered into the regression at the same time.

In SPSS, generally there are five basic methods to choose from, i.e. **enter, stepwise, remove, backward and forward**. The underlying concepts are comparable to the ones presented above. The criteria to enter or remove a variable in SPSS are PIN (Probability of F-to-enter) = 0.05 and POUT (Probability of F-to-remove) = 0.10 (สุพรรณ สุกมลสันต์, 2545).

5) Use SPSS function **Statistics/Model fit** to produce ANOVA or an **F-test** result to consider whether at least one of the independent variables chosen has a

relationship with the dependent variable. If none become apparent, the set of independent variables should be changed. If the F-test is significant, a t-test should be conducted.

- 6) Perform a **t-test** for each independent variable to see if there is a relationship between each of them and the dependent variable. If a relationship is not found, that particular independent variable should be taken out of the model. Sometimes results from an F-test and a t-test might not accord with each other, in that case, a multicollinearity problem might exist.

When a regression equation is arrived at, a certain set of criteria is available to evaluate whether the variables chosen are appropriate and sufficient as well as whether the model selected is the best regression equation. There are five values that can be observed (กัลยา วานิชย์บัญชา, 2546):

- **F-test** which could indicate whether there is at least one independent variable in the model that has a significant relationship with the dependent variable
- **t-test** which will be statistically significant if a particular independent variable has a significant relationship with the dependent variable
- **Multiple coefficient of determination** or R-Square explains the proportion of variability in a dependent variable that could be explained by the independent variables. A model with the highest R-Square and has a significant relationship from an F-test and a t-test is a good fit model.
- **Correlation coefficient** ( $r$ ) shows the relationship between variables. The ones with a value close to 1 or -1 are those with the highest correlation.
- **Standard error of estimate** should be at a minimum level in a good fit model.

In addition, a researcher needs to check for absence of **autocorrelation**. Autocorrelation exists when many variables tend to have increment over time. This is often a problem with time series data. Each observation should be independent of other observations if the error terms are not to be correlated, which would in turn lead to biased estimates of standard deviations and significance. Autocorrelation could be detected by looking at the Durbin-Watson coefficient. By using the SPSS function **Statistics/Durbin-Watson**, a value could be easily obtained. After that the following conditions should be observed:

- a. If the value of Durbin-Watson is between 1.5 and 2.5, the residuals are independent from each other.
- b. If the value of Durbin-Watson is less than 1.5 (approaching 0), the residuals have a positive relationship. The more the value approaches 0, the higher the positive relationship of the residuals.
- c. If the value of Durbin-Watson is higher than 2.5, the residuals have a negative relationship. On the other hand, if Durbin-Watson value is approaching 4, a highly negative relationship exists.

When autocorrelation is present, generalized least-squares (GLS) could be used to correct it. In iterations of GLS, the estimated ordinary least-squares residuals are used to estimate the error covariance matrix and GLS estimation minimizes the sum of squares of the residuals weighted by the inverse of the sample covariance matrix (Garson, 2004).

### **Linear or Non-linear Relationship**

In multiple regression, it is assumed that the relationship between variables is linear. Multiple regression procedures are, however, not greatly affected by minor deviations from this assumption (Statsoft, 2004). However, as a rule, it is always advisable to use SPSS function **graph/scatterplot** for variables of interest to see if linearity could well explain the relationship among variables. If the curvature in the relationships is evident, smoothing techniques and non-parametric regression exist to handle this situation.

**Smoothing** is fitting a nonlinear line through the points on a scatterplot. Smoothing could be achieved by employing several alternative methods. Garson (2004) suggests the following methods:

- a) *Binning*. The independent (x) variable is divided into non-overlapping ranges called bins and the regression line is calculated separately for each bin, resulting in a series of regression lines connected in stair-type steps.
- b) *Local Averages*. This method is similar to binning, but a bin is moved across the independent variable range and regressions are calculated at a large number of equally spaced data points. This method typically involves 'boundary bias', flattening the regression line at the left and right edges of

the distribution. When the independent variable is time, local averages are called *moving averages*. It is a common technique in time series analysis.

- c) *Kernel Estimation*. Kernel estimation is local averaging with weighting so that cases nearer to the center of the bin are weighted more. Kernel estimation will result in a smoother line than local averaging but will still display boundary bias.

**Nonparametric regression** is a group of techniques which fits a smoothed curve to the data scatterplot rather than a straight line. Nonparametric regression is now considered preferable to simply adding polynomial terms to the regression equation as is done in the SPSS function **Analyze/Regression/Nonlinear**. Nonparametric regression methods allow the data to influence the curve of a regression line. Therefore, instead of positing a model in advance, nonparametric regression will derive the model from the data. Consequently, fitting a curve to noise in the data is a critical concern in nonparametric regression. Examples of techniques available for nonparametric regression suggested by Garson (2004) are a) *Local polynomial multiple regression* (nearest neighbor smoothing), b) *Additive regression models* (adjusted y as a local regression function of x), c) *Projection-pursuit regression* (reducing the number of variables in local regression and by making the dependent an additive function of a series of bivariate partial regressions), d) *Regression trees* (making the dependent variable a function of a binning and averaging process), and e) *GLM nonparametric regression* (allowing the logistic regression of the dependent variable to be a nonlinear function of the logistic regression of the independent variables).

Sometimes researchers might choose to explicitly allow nonlinear components. The key advantage of nonlinear regression over many other techniques is the broad range of functions that can be fitted. There are many processes that are inherently nonlinear. For example, test anxiety and test scores could have a linear relationship in the initial stage. But by the time the test anxiety goes up and up, the test scores could go down. Therefore, a non-linear least square regression could be employed in this kind of situation. On the other hand, the key

disadvantage of non-linear regression is shared with the linear procedures. It is a strong sensitivity to outliers. Just as in a linear least squares analysis, the presence of one or two outliers in the data can seriously affect the results of a nonlinear analysis (National Institute of Standards and Technology, 2004).

In SPSS, the **Curve estimation** menu allows 11 models of relationship: linear, logarithmic, inverse, quadratic, cubic, power, compound, S, logistic, growth and exponential. The researcher could choose the one that most fits the data collected. In this study, if the relationship is not found to be linear, one of the above-mentioned smoothing or nonparametric regression will be employed to fit the curve.

### **The Sample Size Required in Multiple Regression**

According to Tabachnick and Fidell (2001), the appropriate sample size for different purposes is as follows:

- For testing b coefficients,  $N \geq 104 + m$ , where m is the number of independent variables.
- If stepwise regression is employed,  $N \geq 40m$  since stepwise methods can absorb noises easily and could not generalize in a smaller dataset.
- For testing R-Square,  $N \geq 50 + 8m$ .

According to the above consideration, the sample size in this study should be at least 74 up to 120.

In conclusion, all the above review of related literature provides the fundamental ideas of this study. The prior research works indicate that the three selected variables, i.e. the formal content study, the English language attainment and the overall academic achievement possess the potential in having relationships with a reading test score. In this study, whether relationships among them exist or not will be investigated.

### **Summary**

Chapter two presents the review of related literature that provides the underlying concepts of this study. The review includes the theories of reading, the

perspectives on language tests, tests of English for Specific Purposes, test takers' variables, text variables, correlation analysis and multiple regression analysis. They are then employed as the basis for instrument development, data collection and analysis and interpretation of the findings. Chapter three presents the research methodology of this study.



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## CHAPTER III

### RESEARCH METHODOLOGY

Chapter 3 deals with the research methodology regarding the population and sample, the development and validation of the research instruments, data collection and data analysis.

#### **Population and Samples**

The population consists of 237 fourth-year students in the Faculty of Commerce and Accountancy majoring in Business Administration at Chulalongkorn University in the second semester of 2005 academic year.

In the pilot study, the test was administered on November 8, 2005 in the class hour of the International Finance course so all 52 business administration students who were present on the day took the test. In the main study, the test was administered in 3 different test administrations during January 24 – February 7, 2006 in the class hour of the two major required courses: Marketing Planning and Seminar in Finance so that the majority of the subjects could be obtained. There were 133 students participating in the main study. The subjects who took part in the pilot study were not included in the main study.

There are three sub-majors in Business Administration: Marketing, Finance and International Business Management (IBM). The majority of the finance and marketing students took part in either the pilot or main study. Table 1 gives the information of the population and samples participating in the study.

Table 1  
Population and Samples Participating in the Study

Sub-majors	Population	Pilot	Main	Total
Marketing	75	0	61	61
Finance	112	37	72	109
IBM	50	15	0	15
Total	237	52 (21.94%)	133 (56.12%)	185 (78.06%)

The reason that IBM students were not involved in the main study was that they had finished all required courses in the previous semesters and needed to enroll in a number of free elective subjects offered by various sub-majors during the semester. It is, therefore, not feasible to access them in a particular class.

Table 1 indicates that samples in the pilot and main study represent 21.94% and 56.12% of the target population respectively. The total percentage of the pilot and main studies is 78.06% of the target population which indicates that the majority of the population was included in the study. With reference to the literature review in Chapter II, the appropriate sample size recommended by Tabachnick and Fidell (2001) ranges from 74 to 120 so the number of 133 subjects is considered a sufficient sample size for this study. In addition, Yamane (1967) suggests that for a population of 240, a sample size of 148 is recommended. The figure is computed by the formula which denotes 0.5 for population proportion which gives the maximum number of sample size. One hundred and thirty-three subjects in this study is close to the recommended maximum sample size and could be considered a sufficient number of sample size.

### Research Instruments

1. To assess the subjects' English reading performance, a Reading Test of English for Consumer Product Marketing (RT-ECPM) has been developed.
2. To collect the data on the test-takers' variables and their attitudes towards the test, a questionnaire is used to elicit the responses.



## **1. The Reading Test in English for Consumer Product Marketing (RT-ECPM)**

Three methods were employed in identifying the target language use of English for Consumer Product Marketing:

### **1) An interview with 10 senior executives during October – December, 2004**

The groups of people upon whose target language use is focused are the marketing personnel from the entry level to junior management positions. In other words, they are from Brand Manager level downwards. The official titles could be Product Executive, Marketing Trainee or Assistant Brand Manager depending on the organizational setup of each company. The rationale of selecting this group is that their positions are the ones that new university graduates are likely to be put in if they apply for jobs in this industry.

The expert informants<sup>1</sup> are the supervisors of the target group. In the interviews, they were asked about the nature of target language use of the target group (see Appendix A). The businesses they belong to could be categorized as follows:

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Table 2  
Subject Experts' Group of Business

Group of business <sup>3</sup>	number	Total number per group
a) Foods		
Food	1	
Snack	1	
Food supplement	2	4
b) Personal care		
Hair and personal care	2	
Toiletries	1	3
c) Household		
Home durables	1	
Film	1	2
d) Fashion		
Cosmetics	1	1

The information from the interview was employed in the development of the RT-ECPM. Following are the details collected from the interviews.

### 1.1 The recruitment process

When asked about the screening procedure for new staff in terms of language proficiency, they mentioned that it usually started from an essay writing in English followed by an interview. Only in one company is a math test (adapted from GMAT) and language test (adapted from TOEFL excluding listening part) employed in the screening process. All of them mentioned that a language test should be included in the recruitment process and preferably within an hour's time. Generally, the candidates are mainly graduates with a Business Administration educational background.

1.2 Level of satisfaction with the target group staff's English language ability (5-point scale)

The answers were around 2-3 point scale reflecting a gap between the managers' expectation and the staff's performance. Nine out of ten subject experts expressed their concern for their staff's improvement in English language ability.

1.3 The informants' perception on the importance of English language ability for the target group in performing the job successfully (5-point scale)

Eight informants who worked in multinational companies mentioned a 4-5 point scale. Only two informants cited a 3-4 point scale. The companies they belonged to were Bangkok-based and did not have affiliates overseas. It was clear that the perception of the importance of English language ability increased when the informants worked in a multinational environment.

1.4 Summary of tasks performed in English by the target group

Table 3 below summarizes the findings from the interview in terms of tasks performed in English by the target group. The informants were asked to tick where a particular task was generally performed by their staff in English and skip the task that was not. The total scores and ranking of the tasks in reading, writing, speaking and listening are presented in the right column.

Table 3  
Tasks Performed in English by the Target Group

Reading tasks performed in English	Scores
Read incoming emails in English within the company, customers, suppliers, etc. อ่านอีเมลภาษาอังกฤษที่ส่งมาจากภายในบริษัท จากลูกค้า และผู้ขายสินค้า เป็นต้น	10
Read documents in English such as product catalogues or product knowledge sheets, manuals, incoming letters, job descriptions, contracts, circulations, etc. อ่านเอกสารที่จัดพิมพ์เป็นภาษาอังกฤษ เช่น ความรู้เกี่ยวกับผลิตภัณฑ์ คู่มือต่าง ๆ จดหมายจากภายนอก เอกสารอธิบายลักษณะงาน สัญญาต่าง ๆ และจดหมายเวียน เป็นต้น	10
Read to analyse sales performance reports, marketing plans / proposals, consumer research reports and market reviews which are in English. อ่านเพื่อวิเคราะห์ยอดขาย แผนการตลาด รายงานการวิจัยผู้บริโภค และบทวิเคราะห์การตลาด ซึ่งจัดทำเป็นภาษาอังกฤษ	10
Read English business news or news clippings อ่านข่าวสารธุรกิจจากภาษาอังกฤษ หรือ ข่าวตัดที่เป็นภาษาอังกฤษ	7

Writing tasks performed in English	Scores
Write emails in English to send within the company, to customers, suppliers, etc. เขียนอีเมลภาษาอังกฤษเพื่อส่งให้ภายในบริษัท ให้ลูกค้า และผู้ขายสินค้า เป็นต้น	9
Write presentations in English. เขียนการนำเสนอเป็นภาษาอังกฤษ	9
Write marketing plans, proposals or reports in English เขียนแผนการตลาด แผนงาน และรายงานเป็นภาษาอังกฤษ	9
Write formal documents in English such as outgoing letters, contracts, etc. เขียนเอกสารที่เป็นทางการเป็นภาษาอังกฤษเช่น จดหมายส่งไปภายนอก และสัญญาต่าง ๆ เป็นต้น	4

Table 3 (continued)  
Tasks Performed in English by the Target Group

Speaking and Listening tasks performed in English	Scores
Conduct presentations in English นำเสนองานเป็นภาษาอังกฤษ	7
Discuss in meetings held in English ร่วมแสดงความคิดเห็นในการประชุมที่ใช้ภาษาอังกฤษ	6
Communicate in English with outsiders, e.g., customers, suppliers, principals, consultants or advertising agencies สนทนาเป็นภาษาอังกฤษกับลูกค้า ผู้ขายสินค้า เจ้าของผลิตภัณฑ์ ที่ปรึกษา หรือ บริษัท โฆษณา	5
Communicate in English with superiors, colleagues or subordinates สนทนาเป็นภาษาอังกฤษกับหัวหน้างาน เพื่อนร่วมงาน หรือ ผู้ใต้บังคับบัญชา	3

According to the informants, the target group generally does not need to converse in English in their routines except in some companies where the target group has foreigners as their superiors. They said that the target group had more opportunities to read and write in English. The most often used skill is reading. The informants were also asked to rank the frequency of reading tasks from highest to lowest. Proper weight was put into each rank, for example, the highest frequency assumed 4 and lowest frequency assumed 1 in value (Note: if only 3 tasks were chosen, the ranking will be done from 3 to 1). Table 4 presents the weighted scores of the reading tasks.

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Table 4  
Weighted Scores of Ranking of Reading Tasks

Reading Tasks performed in English	Weighted Scores
Read incoming emails in English within the company, customers, suppliers, etc. อ่านอีเมลภาษาอังกฤษที่ส่งมาจากภายในบริษัท จากลูกค้า และผู้ขายสินค้า เป็นต้น	33
Read documents in English such as product catalogues or product knowledge sheets, manuals, incoming letters, job descriptions, contracts, circulations, etc. อ่านเอกสารที่จัดพิมพ์เป็นภาษาอังกฤษ เช่น ความรู้เกี่ยวกับผลิตภัณฑ์ คู่มือต่าง ๆ จดหมายจากภายนอก เอกสารอธิบายลักษณะงาน สัญญาต่าง ๆ และจดหมายเวียน เป็นต้น	25
Read to analyse sales performance reports, marketing plans/ proposals, consumer research reports and market reviews which are in English. อ่านเพื่อวิเคราะห์ยอดขาย แผนการตลาด รายงานการวิจัยผู้บริโภค และบทวิเคราะห์การตลาด ซึ่งจัดทำเป็นภาษาอังกฤษ	23
Read English business news or news clippings อ่านข่าวสารธุรกิจจากภาษาอังกฤษ หรือ ข่าวตัดที่เป็นภาษาอังกฤษ	7

Table 4 shows that the most often reading tasks are reading incoming emails in English within the company, and from customers and suppliers. The other two reading tasks which also have a high frequency are reading product catalogues, manuals and reading to analyze sales performance and marketing plans and proposals. Reading business news in English ranks last among all reading tasks. The reason given by the informants was that business news in Thai is widely available and that could discourage the target group from attempting to read the news in English.

The data provides the source of text types to be used in the test development of RT-ECPM. Based on the data collected, the text types that will be included in the RT-ECPM are incoming email, product label, monthly sales report, marketing plan, advertising review, and business news. The other two methods of collecting data for RT-ECPM development are corpus-based study and content analysis which will be presented in the subsequent sections.

## 2) Corpus-Based Study of English for Consumer Product Marketing in Thailand

A corpus with a total word number of 114,582 was collected from the following websites:

a) [www.nationmultimedia.com](http://www.nationmultimedia.com)

Content: Business news related to Consumer Product Marketing in 2004.

b) [www.Bangkokpost.com](http://www.Bangkokpost.com)

Content: Business news related to Consumer Product Marketing in 2004.

Economic review for year-end 2003 and mid-year 2004.

Only the content related to Consumer Product Marketing was chosen.

c) [www.acnielsen.com](http://www.acnielsen.com)

Content: Consumer and market research survey and report in 2004.

d) [www.brandingasia.com](http://www.brandingasia.com)

Content: Consumer marketing case studies, Marketing How-to, Marketing intelligence.

e) [www.trendwatching.com](http://www.trendwatching.com)

Content: Trend and insights on consumers and markets.

f) [www.factsfiguresfutures.com](http://www.factsfiguresfutures.com)

Content: Data on various consumer markets, trends in consumer behaviors.

All were selected because of their relevance to the Thai consumer product marketing markets, being up-to-date and containing authentic features. These websites were recommended as good sources of information by the informants in the interview. Only the data in 2004 were selected and gathered into the corpus. Table 5 illustrates the profile of the corpus-based study.

Table 5  
Profile of the Corpus-Based Study

Description	Total number
No. of files	173
No. of words	114,582
No. of sentences	4,666
Types found	7,997

Table 5 indicates that 173 files were gathered in electronic data, totaling 114,582 words. There were altogether 4,666 sentences. Types or words found were 7,997 (repeated appearance of the same word was counted as only one type).

Wconcord is employed as the concordancing software in this study. This program was developed by Zdenek Martinek from the University of West Bohemia, Pilsen, Czech Republic, in close collaboration with Les Siegrist from the Technische Hochschule Darmstadt, Germany. The information was given on the first slide of the software. The key merit of the software is the ability to provide in a considerably rapid process a frequency list and concordancing lines which are the key information needed for the analysis in this study. In addition, it offers wider search possibilities including the Advanced Search option which is considered as a substantial improvement from the formerly available concordancing programs (Cabellero, 2006).

#### Key Findings from The Corpus Study

Words that appeared most frequently were listed by the concordancing software. Generally a number of function words such as articles, pronouns, prepositions, etc. topped the list. The navigating terms such as search, home, next, etc. as well as those in the advertising messages and the proper names were not taken into consideration. The relevant vocabulary for Consumer Product Marketing was studied and listed. The words which appeared in the first 600 ranks are presented in Table 6 below. It illustrates the words that are common in English for Consumer Product Marketing found in the corpus collected. The data provide a comprehensive list of words to be used in the development of the RT-ECPM. The words with asterisks are the words that are later used in the test development and are present in the test paper. Consequently, 74.2% of the first 600 ranks in the corpus are utilized in the test paper.



Table 6  
Relevant Words from the First 600 Ranks

Rank	Words	Frequency (total 114,582)
*18	Market	511
*36	New	378
*37	Products	358
*38	Company	356
*40	Sales	310
*43	Marketing	302
*44	Brand	298
*48	Business	267
*52	Million	243
*62	Consumers	203
*66	Consumer	201
67	Billion	200
*74	Product	170
*89	Local	138
*91	People	137
*93	Share	137
*95	Customers	132
*97	First	127
*106	Stores	119
*113	Growth	117
*114	Most	116
*115	Years	116
*117	Next	110
*118	Price	110
*119	Total	109
*121	Brands	107
*122	Major	105
*129	Prices	98

Table 6 (continued 1)  
Relevant Words from the First 600 Ranks

Rank	Words	Frequency (total 114,582)
132	World	95
*138	Global	89
*141	Campaign	87
*145	High	85
148	Plans	84
*154	Markets	82
*156	Services	82
*160	Many	81
*161	Increase	80
*163	Well	80
*175	Expected	76
188	Revenue	74
194	Retail	73
*202	Branding	71
*209	Advertising	70
*217	Store	70
*218	Top	70
*254	Big	65
255	International	65
*256	Production	65
258	Industry	64
*261	Strategy	64
*271	Customer	61
*272	Line	61
277	Focus	60
*278	Information	60
*279	Manager	60
*280	Months	60

Table 6 (continued 2)  
Relevant Words from the First 600 Ranks

Rank	Words	Frequency (total 114,582)
*286	Added	56
290	Firm	56
*293	Trade	56
*296	Image	55
*297	Launch	55
*298	Number	55
299	Countries	54
300	domestic	54
301	president	54
*302	department	53
304	grow	53
*305	launched	53
*307	quality	53
308	accepted	52
*314	cost	51
316	expects	51
*319	outlets	51
*321	value	51
323	better	50
*324	executive	50
*326	good	50
*327	units	50
*328	category	49
338	costs	47
*339	loyalty	47
*340	target	47
346	worth	46
*360	companies	43

Table 6 (continued 3)  
Relevant Words from the First 600 Ranks

Rank	Words	Frequency (total 114,582)
*361	goods	43
364	currently	42
*365	demand	42
*370	competitive	41
*374	survey	41
*376	budget	40
*388	competition	38
389	economic	38
*390	future	38
395	strong	38
*396	success	38
*397	successful	38
*429	plan	35
449	trends	33
*450	boost	32
455	images	32
*458	position	32
*459	premium	32
*460	purchase	32
*471	leader	31
476	retailer	31
480	businesses	30
487	enter	29
488	expand	29
*494	offer	29
*503	display	28
*504	distribution	28
*519	attributes	27

Table 6 (continued 4)  
Relevant Words from the First 600 Ranks

Rank	Words	Frequency (total 114,582)
522	compete	27
523	concepts	27
*533	trend	27
539	executives	26
550	activities	25
*551	Add	25
*598	Benefits	23
*599	campaigns	23

The words which gained the high ranks but were not included in the list were all function words such as articles, pronouns, etc. as well as the navigating terms such as search, home and next. Apart from the words mentioned, advertising messages and proper names were also excluded from the table.

It is noteworthy that the most frequently used words found in the corpus overlapped markedly with general English words. The corpus-based study reveals that text specificity is not high in English for Consumer Product Marketing. This is consistent with the statement made by Pickett (1986) that English for business is much closer to general English than any other ESP.

The other method employed for data collection for the test development was content analysis. The procedure and relevant details are presented in the next section.

### **3) Content analysis of textbooks in language and content teaching in marketing**

Content analysis was conducted with the textbooks which were selected based on two main criteria. Firstly, they were the textbooks in which the content was highly related to Consumer Product Marketing. Secondly, they were textbooks used in the universities. Two groups of textbooks were included as the study investigates the effect of both background knowledge and language proficiency. The first group concerns mainly English language learning in Marketing. The

second group is related to content learning in Marketing. The names of the language textbooks and marketing textbooks are provided in Appendix B.

Most textbooks are invariably content-based and usually accompanied by exercises or questions at the end of each unit. The themes are used to identify the contents. The end-of-unit exercises are used to spot the specified tasks intended in each exercise. In the content analysis, the following procedures are employed:

- a) Tallying the theme of each unit of the books.
- b) Classifying exercises or questions after each unit into three categories: vocabulary, comprehension and grammar focus.

The result of tallying the themes is presented in Table 7.

Table 7  
Contents Found in the Content Analysis of Textbooks

Rank	Theme / Content	Frequency
1	Pricing	9
2	Promotion	9
3	Place / Distribution	8
3	Advertising	8
3	Market segmentation	8
4	Product / Product policy	7
4	Consumer Behavior	7
4	Marketing concepts / fundamentals	7
5	Market research	6
5	Branding	6
5	International marketing	6
6	Retailing / retail outlets	5
6	Planning / Marketing Plan	5
6	Personal selling	5
7	Marketing strategies	4
7	New product development	4
7	Public relations	4

Table 7 (continued)  
Contents Found in the Content Analysis of Textbooks

Rank	Theme / Content	Frequency
8	Positioning	3
8	Competitors	3
8	Sales force / management	3
9	Customer relation management	2
9	Integrated marketing communication	2
9	Forecasting	2
9	Direct marketing	2
10	Customer satisfaction	1
10	Plan implementation / evaluation	1
10	Marketing mix	1
10	Media	1
10	E-Marketing	1
10	Ethics and social responsibility	1
10	Societal marketing	1
10	Industry analysis	1
10	Industrial marketing	1
	Total count	134

Table 7 lists the contents found the most frequent in the textbooks and they are arranged in descending order. Pricing, promotion, place or distribution channels, advertising and market segmentation were found to be the most frequently appeared themes in all textbooks. The data provides the source of appropriate themes or content in the development of RT-ECPM.

Table 8 shows the end-of-unit tasks from the textbooks. The purpose of collecting the information is to identify the guidelines for an appropriate proportion of reading test tasks. According to Table 8, 60% of the tasks in the textbooks are concerned with reading comprehension tasks while 30% is dedicated to vocabulary. Grammar focus accounts for less than 10% of the total tasks in all textbooks. This is consistent with the related literature review in Chapter II that, in English for

Business Purposes, comprehension is more important than the elements of language (John and Davies, 1983). These two components, i.e. comprehension and vocabulary were then included in the specifications of the RT-ECPM.

Table 8  
End-of-Unit Tasks from Textbooks

Focus of tasks	Frequency count	Percentage
Comprehension	129	60.28
Vocabulary	65	30.37
Grammar focus	20	9.35
Total	214	100.00

After data from all three sources was gathered, the researcher started to work on test specifications. A review of standard tests provided by Business Language Testing Service (BULATS) was conducted. As mentioned in Chapter II, BULATS is developed and run by an international consortium of examination providers who are the University of Cambridge (ESOL examinations), Universidad De Salamanca, Alliance Francaise, Goethe Institut and Association of Language Testers in Europe (ALTE) (University of Cambridge ESOL Examinations, 2006). BULATS is closely linked to the Council of Europe's Common European Framework for modern languages. BULATS has different tests for different skills and offers both paper-and-pencil and computer-based modes. An outline of the reading test offered by BULATS consists of 10 sections with 60 questions and lasts for 60 minutes. The reading tasks include gap-filling, multiple choice, matching and error correction tasks. Text types include notices, messages, timetables, adverts, leaflets, graphs, short to medium length texts to check grammar and vocabulary and long texts from newspapers and magazines. The key components of a standard test provided by BULATS are:

1. Grammar and vocabulary
2. Reading for gist in short and long texts
3. Reading for specific information in short and long texts
4. Understanding graphs, timetables, adverts, etc.



Based on the review of related literature in Chapter II and the analysis of the BULATS test, the reading constructs or abilities to be measured in the RT-ECPM are proposed as follows:

1. Ability to understand vocabulary and terminologies used in the Consumer Product Marketing field
2. Ability to understand main ideas in short and long texts
3. Ability to understand details and identify specific information in short and long texts
4. Ability to draw inferences based on information in the text
5. Ability to understand information in non-verbal media such as charts, maps, graphs, diagrams which are generally presented in the work of this field

Then, the researcher arrives at the test specification of which the details are presented in Appendix C. It is based on the review of the related literature and the data collected from the interview, corpus-based study and content analysis. The data collected from the interview indicated the skills to be tested and text types commonly encountered by the target group. The data from corpus-based study provided a list of frequent words used in English reading in the field. Subsequently, the data from content analysis gave information on themes and content as well as the key components of the test. Based on the test specifications, 55 items of multiple-choice question are constructed. The test consists of 2 parts as follows.

Part 1 (a), (b): Vocabulary	20 questions
Part 2: Reading comprehension	35 questions

The draft of RT-ECPM which is later used in the pilot study is presented in Appendix D. Table 9 presents the objectives and numbers of the test items.

Table 9  
Objectives and Numbers of Test Items

Objectives	Item number
<u>Part 1 a) and b)</u>	
1) Understand vocabulary and terminologies commonly used in the field	1 - 20
<u>Part 2</u>	
2) Understand main ideas	21,24,28,40,46,50
3) Understand details and identify specific information	22,23,26,27,29,30,31,33,35,37,39,42,43,47,49,51
4) Draw inferences from information in the text	25,32,34,36,38,41,48,55
5) Understand information in non-verbal media, e.g. graphs, tables, charts, etc.	43,45,52,53,54

After the draft version of the test had been developed, an a priori validation was carried out by having 5 lecturers and 3 senior executives evaluate the test. The evaluation form is provided in Appendix E. H, M and L are used to identify the degree to which the item (question) measures the ability indicated in the objectives.

H = High degree of congruence with the objective

M = Moderate degree of congruence with the objective

L = Low degree of congruence with the objective

The a priori instrument validation result is shown in Appendix F. It shows that all except question no.6 in part 1(b) obtained an overall high rating in congruence with the objectives. Regarding the appropriateness of the content, all raters rated 'yes' for all parts. Similar to the overall evaluation, all raters rated 'yes' for all except for the question concerning time allotment. Two raters commented that one hour provided might not be enough while there was a rater who commented that more questions, for example, five more, should be included to increase time pressure. Apart from the above process, the test was also evaluated on its readability. It was analysed by readability test software provided on the webpage by Child (2003). The following analysis was obtained. The readability software also provides basic guidelines for suggested levels.

***Gunning-Fog Index: 16***

The suggested level for general reading is between 11 and 15. The lower the score is, the more readable the text. The level higher than 22 is considered the equivalent of post-graduate level text.

***Flesch-Kincaid Reading Ease: 52***

Generally the recommended level for general reading is between 60 and 80. The higher the score is, the more readable the text.

***Flesch-Kincaid Grade Level: 8***

The recommended level is 6 to 7. The lower the score is, the more readable the text.

With reference to the literature review, Gunning-Fog Index gives the number of years of education that a reader needs to understand the text (Costello, 2001). Therefore, the readability level of Gunning-Fog index of 16 implies that the text is suitable for a reader of 16 years of English study or the equivalent of fourth-year university students who started learning English from grade 1. From the Flesch-Kincaid Reading Ease and Flesch-Kincaid Grade Level, the test paper could be considered slightly difficult compared to the general reading. It is conceivable when the test concerns English for Specific Purposes. As prior research studies reveal, the readability index does not provide information about whether the text is understood or comprehended by its reader. In other words, readability formulas cannot measure how comprehensible a text is. However, the text readability helps explain how the test could be viewed by average readers.

Consequently, the data as well as the comments and suggestions from the lecturers and the executives were used in modifying the test. The test was then revised and used for the pilot study.

The purpose of the pilot study is to test the research instruments and the procedures of test administration for the improvement of the main study. The subjects who participated in the pilot study were excluded from the main study. The researcher applied the item analysis program (Classical Test Theory) initially developed by Chung Teh Fan to conduct the item analysis. The program suggests .20-.80 for the item difficulty index and .20 or more for the item

discrimination index. Table 10 presents the reliability estimate and item analysis indices calculated for the data in the pilot study.

Table 10  
Reliability Estimate and Item Analysis Indices for Pilot Study

Description	Data
Reliability estimate (KR-20)	.724
Difficulty index	.696
Discrimination index	.233
Point-biserial correlation	.250

The reliability estimate used in the study is Kuder-Richardson 20 (KR-20) as KR-20 is considered to be the appropriate index of test reliability for multiple-choice examinations (Tulane University, 2006). The KR-20 is a measure of internal consistency reliability which accounts for the number of test items, the students' performance on every test item and the variance for the set of student test scores. The index ranges from 0.00 to 1.00. A value that is close to 1.00 is desirable, reflecting that the test is measuring what it intends to measure. The recommended level for the reliability estimate of scores is at least .70 (Fraenkel and Wallen, 2000). The calculated KR-20 of RT-ECPM in the pilot study is .724.

### **Item Analysis**

Item analysis is an important phase in the development of a test. In this phase, statistical methods are used to identify any test items that are not working well. The two most common statistics reported in an item analysis are the item difficulty index and the item discrimination index (Professional Testing, 2005).

#### ***Item Difficulty Index***

The item difficulty index is a measure of the proportion of test takers who answer the item correctly. For this reason, it is frequently called the *p-value*. It can range between 0.0 and 1.0, with a higher value indicating that a greater proportion of test takers responded to the item correctly, and it is thus an easier item. In the

pilot study of the RT-ECPM, the minimum and maximum item difficulty indices are .096 and 1.00 respectively. The mean of the item difficulty index is .696 which falls in the recommended range of .20 - .80.

### ***Item Discrimination Index***

The item discrimination index is a measure of how well an item is able to distinguish between test takers who are knowledgeable and those who are not. The Discrimination Index (d) is computed using the performance of the equally-sized high and low scoring groups on the test. The range of this index is +1 to -1. The recommended discrimination index value is the level which is .2 or more (Kelley et al, 2002). A discrimination index value below 0.0 suggests that an item is discriminating negatively, i.e. the most knowledgeable test takers are getting the item wrong and the least knowledgeable test takers are getting the item right. Sometimes mis-keyed items could be detected by the item discrimination index as well. In the pilot study, the mean of the item discrimination index (d) is .234 which is higher than the benchmarked value of .2, suggesting the adequate discriminating effect of the test.

Another type of discrimination index which is quite common is point-biserial correlation. The point-biserial correlation looks at the relationship between an examinee's performance on the given item (correct or incorrect) and the examinee's score on the overall test. The recommended level is higher than .2. The statistical analysis shows that the mean of the point-biserial correlation coefficient in the pilot study is .250, indicating an acceptable level of discrimination effect. The information of the item analysis of the pilot study is presented in Appendix G.

### **Item Review**

Then the item review was carried out. The test used in the pilot study consists of 55 items, allowing 10 items to be dropped out for the final 45 items in the main study. The criteria used in considering which items are to be discarded are:

1. Items with no or a negative discriminating effect are to be dropped out. Therefore, items no. 7,10,12,17 and 26 are taken out from the test.

2. Items which are very easy or very difficult were then deleted. Therefore, items no. 16, 33, 34, 43 and 54 were taken out.
3. There is an adjustment in the option 4) for item no. 55 because the option appears to be a poor distractor as an equal number of strong and weak students (7 each) were drawn to choose it. It was then revised.

However, some items that do not have discriminating effect higher than .20 or do not fall in the suggested difficulty index of .20-.80 are retained in the test because taking them out will affect the balance of the abilities planned to be measured in the test. In addition, item analysis based on Classical Test Theory is highly dependent on the specific samples who take the test. The properties of the items could vary dramatically across different groups of individuals (Measurement Excellence and Training Resource Information Center, 2005). In addition, the sample size of 52 subjects in the pilot study is not a substantial number that could generate completely stable results. Item analysis is, therefore, used as a guideline in the item review.

After the item review, the final version of the RT-ECPM was obtained and is presented in Appendix H.

## **2. The Questionnaire for Test Takers**

To collect data on the test takers' variables and their attitude towards the RT-ECPM, a questionnaire was developed. The questionnaire consists of 2 parts.

Part 1: Collection of data of test takers' selected variables which are

- 1.1) cumulative Grade Point Average (GPAX)
- 1.2) grade achieved in the Principles of Marketing course
- 1.3) grades achieved in the
  - 1.3.1) Business English Correspondence course
  - 1.3.2) Business English Oral Communication course
  - 1.3.3) Advanced Business Oral Communication course

Part 2: The test takers' attitude towards the test. There are 11 areas of concern about which the test takers are asked to give the responses. They concern the key characteristics of the RT-ECPM, for example, the clarity of presentation, the number of questions, time allotment,

the level of difficulty, the perceived usefulness, and so on. At the end of Part 2, there is the space provided for the test takers who would like to give comments on the RT-ECPM's merits and areas of improvement.

A 4-point attitude scale is employed in the questionnaire. The four options are 1) strongly disagree, 2) disagree, 3) agree and 4) strongly agree. The rationale of using a 4-point scale is that by having no middle option of "neither agree nor disagree", the 'central tendency bias' could be minimized. Central tendency bias occurs when respondents try to avoid using extreme response categories (Wikimedia, 2006). An even-point such as a 4-point or 6-point scale requires the respondents to exercise their discretion and can reduce the chance of respondents simply giving neutral responses without consulting the questions asked. An even-point Likert scale is a new approach that has become popular in social science studies since 1990 (รังสรรค์ โคมยา, 2548). In an opinion survey using both even-point and odd-point scales, Stanford University found that, with an equal number of items, an even-point scale provides higher reliability estimate than an odd-point scale (ibid). The questionnaire is presented in Appendix I. The appropriate reliability estimate for the attitude questionnaire is the Cronbach Alpha Reliability Estimate as it can account for a weighted response, i.e. 1 to 4 in this case. The Cronbach Alpha Reliability Estimate computed for the questionnaire from the pilot study is .858, indicating a high level of reliability estimate.

### **Data Collection**

After the development and validation of the instrument, the pilot study was conducted on November 8, 2005. Fifty-two fourth-year students from the Faculty of Commerce and Accountancy majoring in Business Administration took part in the test. They were students enrolling in the International Finance class which was the course offered to students from various sub-majors. The test was administered in their course hour so all students present on the day took the test. Before the test was administered, the researcher explained the objective and the significance of the RT-ECPM to the test takers. They were also informed about the opportunity to self-assess their English language ability through the score reported. The researcher and

the lecturer proctored the test which lasted for 60 minutes. After that, the questionnaires were completed by the test takers to provide information on the test takers' variables and their attitude towards the RT-ECPM. GPAX was reported by the students in its original form which was the interval data. However, for the Principles of Marketing and the three Business English courses, the students' raw scores were not available. The letter grades were, therefore, reported for the data analysis. The letter grades (A-F) which were in an ordinal scale were then converted into numbers (4.00-0.00) based on the university's regulations regarding the designated letters and numbers used for students' evaluation (ระเบียบจุฬาลงกรณ์มหาวิทยาลัย, 2542) as follows:

Table 11  
Conversion Table of Letter Grades into Numbers

Letter grades	Corresponding numbers
A	4.00
B+	3.50
B	3.00
C+	2.50
C	2.00
D+	1.50
D	1.00
F	0.00

For the main study, a similar procedure to the pilot study was followed. The main study was conducted in 3 different test administrations during January 24-February 7, 2006. The test was administered in the class hour of the two major required courses: Marketing Planning and Seminar in Finance so that the majority of the subjects could be obtained. One hundred and thirty-three fourth-year students participated in the test. According to the formula suggested by Tabachnick and Fidell (2001) in the literature review, the appropriate sample size for this study ranges from 74 to 120 subjects. Therefore, the 133 subjects represent a sufficient



sample size. The test paper in the main study contained 45 questions as modified by the pilot study result. The test time was 60 minutes.

### **Data Analysis**

To answer the research questions, the following data analysis procedures were employed.

- 1) For research question (1), descriptive statistics and Pearson product-moment coefficients were calculated to investigate the relationship between each of the selected test takers' variables and the RT-ECPM scores.
- 2) For research question (2), multiple regression analysis was conducted to examine the extent that the three variables individually or in combination can predict the RT-ECPM scores.
- 3) For research question (3), descriptive statistics, i.e. mean score and grand mean score of the attitude scale were computed to investigate the attitude of the test takers towards the RT-ECPM. To test the significant difference between the obtained value and the set criterion, a t-test was carried out.

When data was collected, a check on whether the assumptions of the statistical treatment were met was required.

### **Checking the Assumptions of the Multiple Regression Analysis**

With reference to the literature review on pages 50-53, following assumptions should be met before statistical analysis will be conducted. Each of them was discussed in the following section based on the data collected.

#### **1. Proper specification of the model**

The selection of relevant variables in a study should be based on the review of related literature. In this study, the three independent variables are included in the model based on the fact that, according to the literature review, they are the relevant variables in the ESP test situations and have been investigated in various prior research studies to show that they have the significant correlations with the performance in language tests.

## 2. Linearity of relationship

Regarding the linearity of relationship between each independent variable and the dependent variable, the investigation was conducted using partial regression plot. The plots in Appendix K-1 indicate that the variables have linear relationship which means the linearity assumption is met.

## 3. Interval or ratio data

Continuous data which is either interval or ratio data is required in multiple regression. The dependent variable in this study is the test score which is interval data. For the independent variables, GPAX is interval data which meets the assumption. However, for the Principles of Marketing and the three Business English courses, the students' raw scores were not available. The letter grades were reported for the data analysis. The letter grades (A-F) which were in an ordinal scale were then converted into numbers (4.00-0.00) based on the university's regulations regarding the designated letters and numbers used for students' evaluation (ระเบียบจุฬาลงกรณ์มหาวิทยาลัย, 2542). The fact that the data used was converted from ordinal scale could pose a limitation and may weaken the degree of relationship between the variables.

## 4. Non-recursivity

This assumption requires that the dependent variable cannot be a cause of one or more of the independent variable. In this study, the score from the reading test is definitely not a cause of any of the three independent variables. So in this study, the non-recursivity assumption is met.

## 5. No overfitting

Overfitting occurs when a regression model includes all the independent variables which could be summed up to bring about the entire amount of the dependent variable. In other words, it occurs when too many variables are added into the model as an attempt to increase R-Square (Garson, 2004). In this study, the variables are limited to three variables. The variables that will not significantly

increase R-Square will be dropped out from the regression model when the multiple regression analysis is conducted.

#### 6. Absence of perfect multicollinearity

The multicollinearity problem could be detected by evaluating the tolerance values or Variance Inflation Factors (VIF). According to Garson (2004), tolerances below .20 or VIF above 4.00 indicate a multicollinearity problem. According to the collinearity statistics which are presented in Appendix K-2 all tolerance values are much higher than .20 and all VIF factors are far lower than 4.00, indicating that the multicollinearity problem does not exist in the study.

#### 7. Underlying distribution

The distribution of data could be checked using Normal Probability Plot or Normal Q-Q plots under the SPSS function Analyze/Descriptive Statistics/Explore. The pattern of dots close to the diagonal line of expected values indicates a normally distributed data (เพ็ญแข ศิริวรรณ, 2546). The Normal Q-Q plots for all variables are presented in Appendix K-3. The dots in all plots are close to the diagonal lines, indicating that the data has a normal distribution. Therefore, the assumption of having the same underlying distribution for all variables is met.

#### 8. Homoscedasticity

The scatter plot of standardized residual against standardized predicted value could be used to detect heteroscedasticity. A homoscedastic model will display a cloud of dots while a heteroscedastic model will present a funnel shape in the scatter plot (Garson, 2004). The scatter plot was carried out and presented in Appendix K-4. As a cloud shape is observed, the homoscedasticity assumption is met.

#### 9. Additivity

Additivity assumes that there is no interaction effect between variables. So the amount change in the dependent variable for a unit change in an independent variable is the same regardless of the values of the other independent variables

(Berry and Feldman, 1985). According to Garson (2004), heteroscedasticity could indicate that there is an interaction effect between variables. When the assumption of homoscedasticity is met as previously discussed, the additivity assumption is also satisfied.

#### 10. No outlier

Outliers can be detected by boxplot. It was carried out and presented in Appendix L-5. In a boxplot, the median of the dataset is indicated by the black center line. The red box or what is known as Inter-Quartile Range (IQR) represents the middle 50% of the dataset. The lines extending from the upper and lower line of IQR are the extreme values that are within 1.5 times IQR. Any points that go beyond the lines are outliers and are generally represented by asterisks. In Appendix K-5, no asterisk is present, indicating that there is no outlier in the data.

After all the assumptions were checked, the statistical analysis was conducted and presented in Chapter IV.

#### **Summary**

Chapter three presents the research methodology of the study. The data of the population and sample is presented. The procedures employed in the development of the research instruments are described. The steps taken in data collection and data analysis are also illustrated. Chapter four presents the findings of the study and the discussions of the results.

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## CHAPTER IV

### RESULTS AND DISCUSSIONS

This chapter presents the findings of the study and the discussions of the results. It is divided into five main parts. The first part deals with the descriptive statistics of the data collected. The second part concerns correlation analysis to answer the first research question. The third part presents the multiple regression analysis result that is used to answer the second research question. The answer to the third research question dealing with attitude scales of the test takers is reported in the fourth part. The last part presents the discussions of the findings.

#### **Descriptive Statistics**

Descriptive statistics of the dependent and independent variables are computed. The mean, median, standard deviation, minimum value, maximum value and range are listed in Table 12.

Table 12  
Descriptive Statistics of the Data

Variables	Mean	Median	SD	Min	Max	Range
T_SCORE	32.02	33.00	5.39	18.00	42.00	24.00
PM	3.48	3.50	0.52	1.50	4.00	2.50
ENG_AVE	2.92	3.00	0.55	1.33	4.00	2.67
GPAX	3.12	3.17	0.36	2.26	3.80	1.54

N = 133

Note: T\_SCORE = RT-ECPM reading test score  
 PM = Grade achieved in the Principles of Marketing course  
 ENG\_AVE = Average grade of English courses  
 GPAX = Cumulative Grade Point Average

The mean of the reading test scores is 32.02 while the median is 33.00. The mean and median are close to each other which is one of the characteristics of data

with a normal distribution. The check on the assumption of normal distribution of data is conducted on page 89. It indicates that data of all variables are normally distributed. For data with a normal distribution, two-third or 68% of the scores will fall in the range of  $\pm 1$  standard deviation (Bachman, 2004). The standard deviation of the reading test scores is 5.39, suggesting that 68% of the test scores falls in the range of  $32.02 \pm 5.39$  or 26.63 to 37.41. The range is 24 with the maximum and minimum scores of 42 and 18 respectively.

The descriptive statistics of each independent variable are as follows:

The mean and median of the grade achieved in the Principles of Marketing course (PM) are 3.48 and 3.50 respectively. The standard deviation is 0.52, indicating that 68% of PM falls in the range of  $3.48 \pm 0.52$  or 2.96 to 4.00. The mean and median of the average grade of English courses (ENG\_AVE) are 2.92 and 3.00 respectively. The standard deviation is 0.55, suggesting that 68% of ENG\_AVE falls in the range of  $2.92 \pm 0.55$  or 2.37 to 3.47. For the cumulative Grade Point Average (GPAX), the mean and median are 3.12 and 3.17 respectively. The standard deviation is 0.36, indicating that 68% of GPAX falls in the range of  $3.12 \pm 0.36$  or 2.76 to 3.48. There is no missing value in the study. The total number of the subjects is 133. The reliability estimate and item analysis indices for the RT-ECPM in the main study are calculated. Table 13 illustrates the results.

Table 13

Reliability Estimate and Item Analysis Indices for Main Study

Description	Data
Reliability estimate (KR-20)	.747
Difficulty index	.711
Discrimination index	.304
Point-biserial correlation	.283

The reliability estimate (KR-20) is .747, meeting the required level of at least .70 (Fraenkel and Wallen, 2000). However, the reliability estimate is not high. This could be partly due to the fact that the test consists of 45 items which is not considered to be a long test. As Brown (1996) points out, a longer test tends to

produce a higher reliability estimate than a short test. The reason of having 45 items in the test lies in the fact that the length of the test allows a test taker to work within the time allotment of one hour. According to the subject informants in the interview, in practice, it is uncommon for their companies to engage a candidate in a language test for longer than an hour. Therefore, in order to make the test fit its ultimate use, the number of questions was limited to 45 questions. From the test takers' point of view, when asked about the appropriateness of the number of questions (see details on page 99), the mean of their responses was 3.36 of the 4-point scale, reflecting that most of the test takers also viewed the test as having an appropriate length.

For the item difficulty index, the recommended level mentioned in the previous section is between 0.20-0.80. The minimum and maximum item difficulty indices are 0.271 and 0.985 respectively. The mean of the item difficulty index of .711 denotes the appropriate difficulty level of the RT-ECPM. The mean of the item discrimination index of .304 is higher than the generally required level of .2 or more. The mean of the point-biserial correlation which is another indicator of the discrimination effect is .283. The item discrimination indices, however, indicate that the discrimination effect of the test is not high. It is noteworthy that the indices on the discrimination effect in the main study improves from the pilot study in which the mean of the discrimination index and the point-biserial correlation coefficient were .233 and .250 respectively.

### **Hypothesis Testing**

Hypothesis 1: There is a significant relationship between each independent variable and the RT-ECPM scores at the .05 level.

$$(H_1: r \neq 0, p \leq .05)$$

To test Hypothesis 1, Pearson product-moment correlation coefficients were calculated and presented in Table 14.

Table 14  
Correlation Matrix of the Variables

	T_SCORE	PM	ENG_AVE	GPAX
T_SCORE	1.000	.246**	.537**	.335**
PM		1.000	.291**	.593**
ENG_AVE			1.000	.534**
GPAX				1.000

\*\* Correlation is significant at the 0.01 level (2-tailed).

Among the variables under study, the highest correlation of .593 is found between PM and GPAX. The lowest correlation of .246 is between PM and T-SCORE. All the correlations are significant at the 0.01 level.

To test hypothesis (1) if there is a significant relationship between T-SCORE and each independent variable, it is found that T\_SCORE has a significant relationship with each of the independent variables at the 0.01 level. The strongest relationship is between T\_SCORE and ENG\_AVE ( $r = .537$ ,  $p < .01$ ). The next strongest relationship is between T\_SCORE and GPAX ( $r = .335$ ,  $p < .01$ ). The relationship between T\_SCORE and PM ranks the last ( $r = .246$ ,  $p < .01$ ). The discussions concerning the findings are presented on page 102.

An intercorrelation between independent variables can also be observed. ENG\_AVE has a significant relationship with PM and GPAX at the 0.01 level with a correlation of .291 and .534 respectively. Similarly, GPAX and PM have a significant relationship at 0.01 level with a correlation of .593 which is the highest value.

Therefore, Hypothesis 1 is accepted. There is a significant relationship between each independent variable and the RT-ECPM scores at the .05 level.

Hypothesis 2: The three selected independent variables can individually or in combination significantly predict the RT-ECPM scores at the .05 level ( $H_2$ : at least one  $B \neq 0$ ,  $p \leq .05$ ).



A multiple regression analysis was employed to assess the second hypothesis. As the review of related literature in Chapter II indicates that all the independent variables have the potentials to be the predictors of the reading test scores, the standard or simultaneous regression method was employed. In the SPSS term, the 'enter' method is used and all independent variables are entered into the regression at the same time. Table 15 illustrates the model summary produced by the SPSS program.

Table 15  
Model Summary of the Multiple Regression Analysis

Model	R	R-Square	Adjusted R-Square	Std. Error of the Estimate	Change Statistics				
					R-Square Change	F Change	df1	df2	Sig. F Change
1	.545	.297	.281	4.5882	.297	18.184	3	129	.001

a Predictors: (Constant), GPAX, ENG\_AVE, PM

b Dependent Variable: T\_SCORE

The R coefficient of .545 is shown in Table 15, indicating that the relationship between T\_SCORE and the independent variables is positive at the moderate level. The R-Square is .297 which means that the independent variables can explain 29.7 % of the variance in the T\_SCORE. The standard error of the estimate is 4.5882.

The R-Square change is the increase or decrease in the R-square when an additional variable is put into the equation. The F change reflects the change in the F-test which is used to test the significance of the R-Square. In this case, the change statistics show that the R-Square change and F change remain constant because the method employed is 'enter' where all predictors are put into the regression equation at the same time.

Table 16 demonstrates the analysis of variance or ANOVA which tests the overall significance of the regression model.

Table 16  
ANOVA Table

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1148.371	3	382.790	18.184	.001
	Residual	2715.599	129	21.051		
	Total	3863.970	132			

a Predictors: (Constant), GPAX, ENG\_AVE, PM

b Dependent Variable: T\_SCORE

In the ANOVA table, the F-value is computed to analyse the variations within and between each group of variables. From Table 16, the F-value is 18.184, yielding a p-value of .001, indicating that the regression model is statistically significant at the .05 significance level. Therefore, it suggests that there is at least one independent variable that is statistically significant in the relationship with the dependent variable. Table 17 illustrates the coefficients of the regression model.

Table 17  
Coefficients of the Regression Model

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	13.773	3.577		3.850	.001
	PM	.962	.948	.093	1.015	.312
	ENG_AVE	4.924	.853	.504	5.774	.001
	GPAX	.158	1.558	.010	.101	.920

a Dependent Variable: T\_SCORE

The unstandardized coefficient B is the increase or decrease in the dependent variable when an independent variable increases by one unit and the other independent variables are held constant. The plus or minus sign of B indicates the direction of the amount change in the dependent variable. The t-test is used to calculate the significance level of each individual B coefficient. ENG\_AVE

is the only predictor variable that the t-value is statistically significant at the .05 level ( $B = 4.924$ ,  $t = 5.774$ ,  $p = .001$ ). The constant is also found statistically significant at the .05 level ( $B = 13.773$ ,  $t = 3.85$ ,  $p = .001$ ). PM is not a significant predictor variable at the .05 level ( $B = .962$ ,  $t = 1.1015$ ,  $p = .312$ ). Similarly, GPAX is not the significant predictor variable at the .05 level ( $B = .158$ ,  $t = .101$ ,  $p = .920$ ). PM and GPAX will, therefore, not be included in the prediction equation. The regression equation used to predict the T\_SCORE can then be written as follows:

$$T\_SCORE = 13.773 + 4.924 (ENG\_AVE)$$

According to the above equation, ENG\_AVE could be used to predict T\_SCORE. With a unit increase in ENG\_AVE, the T\_SCORE will increase by 4.924 with the standard error of .853. As a result, Hypothesis 2 which states that the three selected independent variables can individually or in combination significantly predict the reading test score in the RT-ECPM at the .05 level ( $H_2$ : at least one  $B \neq 0$ ,  $p \leq .05$ ) is accepted.

Table 18 shows that partial and part correlation of the predictor variables in this study.

Table 18  
Partial and Part Correlation of the Predictors

Model	Correlations		
	Zero-order	Partial	Part
1			
PM	.246	.089	.075
ENG_AVE	.537	.453	.426
GPAX	.335	.009	.007

a Dependent Variable: T\_SCORE

The partial correlation in its square form is the percentage of variance in the dependent variable explained by the given independent variable, not counting jointly explained variance (Garson, 2004). While the partial correlation for

ENG\_AVE is .453, those for PM and GPAX are .089 and .009 respectively which are clearly not significant. The part correlation in its square form represents the percentage of variance in the dependent variable uniquely attributable to the given independent variable when other variables in the equation are not allowed to vary (Garson, 2004). The part correlations for ENG\_AVE is .426 and those of the other two independent variables are again insignificant, i.e. .075 for PM and .007 for GPAX. The above information helps explain the reason why the two variables are not included in the regression model.

In summary, English language attainment is found to be the only significant predictor of the performance in the RT-ECPM. The findings indicate that formal content study and overall academic achievement are not significant predictors of the RT-ECPM scores. Therefore, hypothesis 2 which states that the three selected independent variables can individually or in combination significantly predict the RT-ECPM scores at .05 level is accepted.

Hypothesis 3: The test-takers have positive attitudes towards the RT-ECPM.

(H<sub>3</sub>: Mean of attitude scale  $\geq$  2.5 from the 4-point scale on the questionnaire)

To test this hypothesis, the mean scores of the attitude scale for each item and the grand mean score in the test takers' questionnaire were calculated. Table 19 shows the results.

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Table 19  
Scales from the Test Takers' Questionnaire

Item	Statement	Scale				Mean
		4	3	2	1	
1	I am satisfied with the test in general.	48	84	1		<b>3.35</b>
2	Typeface and size of characters in the test are appropriate.	77	52	4		<b>3.55</b>
3	Graphs and tables in the test are clear.	83	46	4		<b>3.59</b>
4	Graphs and tables in the test are appropriate.	77	49	7		<b>3.53</b>
5	The number of questions in the test is appropriate.	58	67	6	2	<b>3.36</b>
6	Time allotment for the test is appropriate.	54	66	11	2	<b>3.29</b>
7	Level of difficulty of the test is appropriate.	35	83	15		<b>3.15</b>
8	The test is useful for my English language learning and development.	62	50	21		<b>3.31</b>
9	The test is useful for my future career.	64	51	17	1	<b>3.34</b>
10	The content of the test is similar to the content of reading of English for Consumer Product Marketing in real situations.	61	62	8	2	<b>3.37</b>
11	The format of the test is similar to the format of reading of English for Consumer Product Marketing in real situations.	51	72	10		<b>3.31</b>
	Grand mean score	<b>3.38</b>				

N = 133

Note: **4** = Strongly agree, **3** = Agree, **2** = Disagree, **1** = Strongly disagree

The Cronbach Alpha Reliability Estimate is .855, indicating a satisfactory level of reliability estimate. The mean scores for each item are all higher than 3, producing a grand mean score of 3.38. Hypothesis 3 stipulates that 2.5 points from a 4-point scale indicates the positive attitude of test takers towards the test. To test the significant difference of the obtained scale and the set criterion, a t-test was carried out.

Table 20  
The t-values for Test Takers' Attitude Scale

	Test Value = 2.5			Mean Difference
	t	df	Sig.	
ITEM_1	19.868	132	.001	.85
ITEM_2	21.722	132	.001	1.05
ITEM_3	22.897	132	.001	1.09
ITEM_4	19.802	132	.001	1.03
ITEM_5	15.426	132	.001	.86
ITEM_6	13.395	132	.001	.79
ITEM_7	12.571	132	.001	.65
ITEM_8	13.038	132	.001	.82
ITEM_9	13.298	132	.001	.84
ITEM_10	14.987	132	.001	.87
ITEM_11	15.400	132	.001	.81

From the t-values given in Table 20, all means are significantly greater than the set criterion of 2.5 at  $p \leq .001$ . Therefore, hypothesis 3 which states that the test takers have positive attitude towards the RT-ECPM is accepted.

At the end of the questionnaire, a section with an open-ended question asking for the comments on the merit and the area of improvement was provided. The following are the comments given by the test takers. When the same or similar comment is given by more than one person, the number in bracket is added to indicate the number of students giving that comment.

Merits:

1. A very good test. (4)
2. It is clearly marketing-focused and could check specialized knowledge. (2)
3. The test matches well with the terms learnt in the marketing-related course and is consistent with the English study in university (2).
4. It is very good but will be better by testing listening, writing and speaking as well. (2)

5. It is good for self-assessment and preparation for a future career. It makes me aware of the level of my English proficiency so that I can seek ways to improve myself. (2)
6. The test is not too difficult. The passages are easy to understand. (2)
7. The test is well diverse and has good variety.(2)
8. A very clear test.
9. It is useful for everyday usage.
10. It is clearly marketing –related.
11. The test provides an opportunity for self-assessment. It makes me realize the importance of English at work.
12. Passages are up-to-date and consistent with current situations.
13. The test checks both marketing and English knowledge at the same time.
14. The test is clearly straight to the point. It tests exactly English in marketing.
15. Very clear typeface and character. Well sequenced.
16. I enjoy reading and working on the test so much. Want to do more!
17. It is a new way of testing English which well covers both English and marketing areas.
18. It is good in checking both English and marketing knowledge.
19. There are just the right number of questions.
20. It is helpful for my future career.
21. The test demands good analysis and interpretation on part of the test takers.
22. The questions are easy to understand and the answers are clear.
23. The test well covers varieties of marketing areas and diverse in terms of marketing information.

Areas for improvement:

1. There are too many questions. (3)
2. There is not enough time. (2)
3. There are too few marketing vocabulary. More should be added. (2)

4. Some students might answer wrongly because of misinterpretation, not because of incompetent English.
5. There are choices that are quite easy.
6. The test should have fewer passages.
7. The passages are too long.
8. I think the English Business news in real-life is much more difficult.
9. Since it is in multiple-choice format, scores could come from luck.
10. The font of the letter should be adjusted to make it more authentic.
11. Some questions are not clear. Some are ambiguous.
12. There should be various charts in the test.
13. The test does not demand much analysis.
14. There should be more questions for each passage.
15. Some questions are too easy and might not be real-life for everyday work.
16. The questions are not very clear.
17. The test is quite academic. It might not be real-life.

However, it was observed that the majority of the test takers tended to skip this part. Only 22 out of the 133 test takers (16.5 %) answered the open-ended question.

The previous section concerns the analysis of the data. The findings include descriptive statistics of the variables, the results from correlation analysis and multiple regression analysis, and the results from the test takers' questionnaire. The discussions of the results are presented in the following section.

## **Discussions**

The purposes of this study are to investigate the relationship between each of the selected independent variables which are 1) formal content study, 2) English language attainment and 3) overall academic achievement and the reading test scores in the Reading Test of English for Consumer Product Marketing (RT-ECPM) and the predictive ability of the independent variables of the RT-ECPM scores.

There are altogether three research questions. The hypotheses corresponding to the research questions are listed in Chapter I and hypothesis



testing is conducted in the previous section. The discussions based on the findings related to each hypothesis are presented in the following section.

### **Hypothesis 1**

“There is a significant relationship between (a) formal content study, (b) English language attainment and, (c) overall academic achievement and the RT-ECPM scores.”

The findings reveal that, among the variables under study, the highest correlation of .593 is found between formal content study and overall academic achievement. The lowest correlation of .246 is found between formal content study and the test scores. The hypothesized explanation for the highest relationship between formal content study and overall academic achievement is that students with high overall academic achievement are likely to perform well in the formal content study which is also instructed in L1 like the majority of the courses in the syllabus. Similar skills may be applied in the Principles of Marketing course and the majority of the courses in the syllabus. The lowest relationship between formal content study and the test scores could be attributed to the fact that since the formal content study in Marketing is instructed and evaluated in L1 while the RT-ECPM aims to measure L2 ability, the relationship between these two variables is, therefore, the weakest. This would also affect the predictability of the test scores by the formal content study which will be accounted for in the discussions of the research question (2).

To test hypothesis (1) if there is a significant relationship between T\_SCORE and each independent variable, it is found that T\_SCORE has a significant relationship with each of the independent variables at the 0.01 level. The strongest relationship is between T\_SCORE and ENG\_AVE ( $r = .537, p < .01$ ). The next strongest relationship is between T\_SCORE and GPAX ( $r = .335, p < .01$ ). The relationship between T\_SCORE and PM ranks the last ( $r = .246, p < .01$ ). The following are discussions concerning the relationship of each independent variable and the RT-ECPM scores.

### **The Relationship between Formal Content Study and the RT-ECPM Scores**

Formal content study has long been studied about its effect on the performance of the language learners in the testing situations particularly in the English for Specific Purposes area. The prior works of Rumelhart (1980), Carrell (1984), Alderson and Urquhart (1983, 1985a and 1985b) indicate that content study or background knowledge of the students in the related discipline has effects on reading test scores. In this study, formal content study in the Principles of Marketing course correlates significantly with the RT-ECPM test scores. However, the strength of relationship between the two variables is not strong since the Pearson product-moment correlation coefficient ( $r$ ) is .246 ( $p < .01$ ). To a certain extent, the findings support the prior research that subject matter familiarity is expected to have a facilitating effect in reading comprehension. As the correlation study does not aim to explain the cause-effect relationship, the conclusion that can be drawn is that formal content study is found to covary with the reading test scores at a moderate level.

### **The Relationship between English Language Attainment and the RT-ECPM Scores**

It was found that English language attainment correlates significantly with the RT-ECPM scores at .01 level. The correlation coefficient of .537 indicates the moderate level of association between English language attainment and RT-ECPM scores. The findings concur with the previous works of Tan (1990), Bernhardt (1991) and Clapham (1996). As English language attainment is always seen as having a direct relationship with performance in language tests, the more insightful notion will be related to its relative and predictive power for the test performance compared with other predictive variables. The issue will be addressed in the study of predictors in research question (2).

### **The Relationship between Overall Academic Achievement and the RT-ECPM Scores**

The findings reveal that overall academic achievement has a significant relationship with the RT-ECPM scores at .01 level. The correlation coefficient of

.335 suggests that there is a moderate relationship between overall academic achievement and the RT-ECPM scores. The results from this study concur with the findings of prior studies (Chastain, 1969; Genesee, 1976; Ekstrand, 1977). It lends support to the study done by Kattan (1990) which indicates that language test scores relate significantly to grade point averages.

According to Coady's classic work (1979), the Psycholinguistic Model could be used to explain the significant relationships found in the findings. As listed in Chapter II, in the Psycholinguistic Model, three components are activated in successful reading comprehension. They are background knowledge, conceptual abilities and process strategies. By background knowledge, Coady means the prior knowledge acquired by the readers. By conceptual abilities, he refers to the general intellectual or cognitive capacity. For processing strategies, he defines them as language processing skills, e.g. syntactic information, lexical and contextual meaning. The three selected variables, i.e. formal content study, overall academic achievement and English language attainment overlap largely in many attributes with Coady's three components. The results that the independent variables in this study have significant relationships with the reading test score support Coady's contention that the three components come into play in successful reading comprehension.

In summary, the results from the analysis show that each of the three selected independent variables has a statistically significant relationship with the RT-ECPM scores at .01 level. The correlation, by all means, does not indicate a cause-effect relationship. Further research studies employing experimental designs might provide more information on the causes of this phenomenon.

### **Hypothesis 2**

“The three selected independent variables can individually or in combination significantly predict the RT-ECPM scores.”

The primary focus of this study is to conduct a study of predictors of the performance in the RT-ECPM. The results from multiple regression analysis indicate that English language attainment is the only significant predictor of the RT-

ECPM scores. Although, according to the first research question, the bivariate correlation between each independent variable and the RT-ECPM scores shows a positive and significant relationship, the multivariate analysis suggests that the best regression equation to predict the RT-ECPM score should include only English language attainment as the predictor variable. The regression model that is the best fit according to the multiple regression analysis is presented below:

$$\text{RT-ECPM test score} = 13.773 + 4.924 (\text{English language attainment})$$

It suggests that for every one unit increase in English language attainment, RT-ECPM scores will increase by 4.924 and vice versa. Formal content study and overall academic achievement are excluded from the model since adding any one of them into the equation will not significantly increase the predictive ability of the equation.

The data from the correlation matrix could be employed to explain this occurrence. The correlation matrix is reproduced here again for ease of reference.

Table 14  
Correlation Matrix of the Variables

	T_SCORE	PM	ENG_AVE	GPAX
T_SCORE	1.000	.246**	.537**	.335**
PM		1.000	.291**	.593**
ENG_AVE			1.000	.534**
GPAX				1.000

\*\* Correlation is significant at the 0.01 level (2-tailed).

Despite the fact that each independent variable has a significant relationship with the RT-ECPM scores, the only significant predictor introduced into the prediction equation is English language attainment. The hypothesized explanation is that there are moderate and significant intercorrelations among formal content study, English language attainment and overall academic achievement. According to the correlation matrix, formal content study has a significant relationship with English language attainment ( $r = .291, p < .01$ ). Overall academic achievement is

also found significantly correlated with English language attainment ( $r = .534$ ,  $p < .01$ ). Formal content study and overall academic achievement are, in turn, significantly correlated with each other ( $r = .593$ ,  $p < .01$ ). Partial and part correlation in Table 18 illustrates that partial correlation of the English language attainment is .453 which is much higher than those of formal content study and overall academic achievement which are .089 and .009 respectively. The findings suggest that the variance explained by the formal content study and overall academic achievement is shared largely by English language attainment. Therefore, when the three independent variables are simultaneously studied, the variance is explained the most by the English language attainment. In other words, among the three variables, English language attainment can be best used as the predictor of the RT-ECPM scores.

The findings confirm the results from the previous research studies conducted by many researchers such as Tan (1990) and Clapham (1996) who found that language proficiency level is the better predictor than knowledge of the subject area. Conversely, the findings do not appear to concur with those in the prior works of Johnson (1981) and Floyd and Carrell (1987) who found that background knowledge had more effect on reading test scores than the level of syntactic and lexical knowledge. Clapham (1996:197) raised two cautions concerning the study of the comparative importance of the two variables. First of all, the difficulty in assessing the extent of learners' background knowledge cannot be overemphasized. Secondly, the effect of the background knowledge on reading comprehension depends on the specificity of the reading passages. The more specific the passages are, the more the effect of background knowledge could be expected. In this study, English for Business Purpose was examined. The highly technical or scientific words are rare and text specificity is not high. As Pickett (1986) points out, English for business is much closer to general English than any other ESP. The less specific texts could result in an insignificant effect with respect to background knowledge. In addition, the fact that the data used in the analysis was interval scale which was converted from an ordinal scale or letter grades could also weaken the significance of the relationship among variables. These notions could help explain why formal content study does not assume the key predictor role in this study.

The findings indicate that English language attainment accounts for 29.7% of the variability in the RT-ECPM scores. It concurs with the results from the survey done by Bernhardt and Kamil (1995) mentioned in the literature review in Chapter II. They found that second language linguistic knowledge is a powerful predictor which accounts for more than 30% of the variance and most research studies left 50% of the variance in second language reading abilities unexplained. The findings support the results found in prior research studies regarding the extent second language knowledge may have an effect on test scores.

In summary, RT-ECPM scores could be best predicted by the level of English language attainment. The magnitude of the predictive ability is, however, limited to approximately 30% (29.7%). The other two variables may indirectly contribute to the variance in the RT-ECPM scores and the remaining variance may be explained by other variables not included in this study.

### **Hypothesis 3**

“The test takers have positive attitudes towards the RT-ECPM.”

The results indicate that the test takers have a positive attitude towards the RT-ECPM. The mean score for each question is clearly higher than 3 points, well above 2.5 points from the 4-point scale on the questionnaire which is used as the benchmark in the hypothesis testing. The researcher’s observation is that the test takers were quite motivated to take the test after the researcher explained about the development, the significance and the use of the test as well as the opportunity to self-assess their English language ability.

As Brown (2004) suggests, student motivation needs to be taken into consideration when planning studies involving tests, and in interpreting the scores of any test. In this study, the strength of the RT-ECPM lies in the way the test was developed and the high rating the test received from the subject experts. The fact that it is based on interviews with ten senior executives in the Consumer Product Marketing field and the authentic texts in the corpus compilation highlights its worth for the parties concerned, e.g. the administrators and particularly the test takers. Most importantly, what is in the test takers’ best interest is the opportunity

for self-assessment particularly at a time that they are about to enter the market work force upon graduation. When the information was communicated to the test takers, they were enthusiastic about taking the test and were likely to perform with full effort. This research question aims to find out whether the procedures followed in this study could stimulate the motivation of the test takers and generate positive attitudes towards the test. The findings show that the steps employed could help bring about the positive attitudes by the test takers towards the test, which, in turn, reinforces the interpretation of the findings and test scores. Examples of the merits of the RT-ECPM given by the subjects are that the test has diversity and good variety, it is clearly marketing-focused and could check specialized knowledge, it provides an opportunity for self-assessment and it is useful for everyday usage and a future career. However, there are some comments leading to the improvement of the instrument. For instance, the subjects suggested that less and shorter passages should be considered, more marketing terminologies could be added and more time should be allowed to work on the paper.

### **Summary**

This chapter reports the results of the findings. Descriptive statistics of the data are presented. Correlation analysis was employed to answer the first research question. Multiple regression analysis was used to analyse the predictability of the variables under study. Mean score of the attitude scale was calculated to indicate the test takers' attitude towards the test. The Chapter ends with discussions of the findings based on the literature review and the theoretical background.

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## CHAPTER V

### CONCLUSIONS AND RECOMMENDATIONS

Chapter Five presents the research summary and the summary of the findings in the first part. The conclusions including implications for language testing are given in the second part. Subsequently, the recommendations for future research are provided in the last part.

#### **Research Summary**

This study concerns three key areas: English for Specific Purposes (ESP), ESP test development, and a study of the relationship between variables and predictors of performance in an ESP test.

The focus of this study is in English for Consumer Product Marketing which is a growing and huge business in Thailand. To date, a test tailored to meet the needs of the industry does not exist and the parties concerned use inferences from the more general tests in recruiting and assessing candidates' language ability or the current work force's needs for improvement. The development of the Reading Test of English for Consumer Product Marketing (RT-ECPM) could help bridge this gap. The test was developed using three key methods, i.e. interview with senior executives in the field, compilation of more than a 100,000-word corpus and the content analysis of marketing and language textbooks. The test went through a validation process and was piloted before it was employed in the test administration of the main study.

Three independent variables are selected to be studied on their relationship with the RT-ECPM scores and their predictive ability of the performance in the RT-ECPM. The three variables are 1) formal content study, 2) English language attainment and 3) overall academic achievement. The rationales for selecting these independent variables are:

1. Formal content study or background knowledge is long known to be a key variable affecting performance in language tests particularly in



English for Specific Purposes (ESP). As mentioned by Douglas (2000), in ESP testing, background knowledge is a necessary, integral part of the concept of specific purpose language ability. In this study, it is the subject-matter knowledge in marketing. The level of formal content study is defined as the subjects' grade achieved from the Principles of Marketing course.

2. English language attainment assumes a high potential in having a significant relationship with the performance in a test. The level of English language attainment could have a powerful predictive power on the reading test performance. In this study, it is operationally defined as the average grade of the last three Business English courses taken by the subjects.
3. Overall academic achievement concerns the level of cognitive ability. Prior research works reveal that there is a significant relationship between scores in reading tests and reasoning tests as well as the intelligence level. Genesee (1976) also found that scores in intelligence tests correlate highly with those of academic achievement tests. For Oller and Perkins (1978), the general intelligence factor of cognitive ability is viewed as identical with the general intelligence factor of language ability. Based on the mentioned research studies, overall academic achievement which is a form of cognitive ability manifestation could be a potential predictor of the performance in a reading test. It is defined as the subjects' cumulative Grade Point Average or GPAX.

There are three research questions in this study. They are:

1. What is the relationship between each of the selected test takers' variables which are (a) formal content study, (b) English language attainment and, (c) overall academic achievement and the RT-ECPM scores?
2. To what extent can the three variables individually or in combination predict the reading test scores in the RT-ECPM?

### 3. What are the attitudes of the test takers towards the RT-ECPM?

The population is 237 fourth-year students from the Faculty of Commerce and Accountancy majoring in Business Administration at Chulalongkorn University in the second semester of 2005 academic year. The samples were 133 students from the population.

Research instruments consist of the RT-ECPM and an attitude questionnaire. The questionnaire was used to collect data on the selected variables and the test takers' attitude towards the test. In terms of statistical procedure, a correlation analysis was used to investigate the relationships between variables. For the study of predictors, a multiple regression analysis was employed. To examine the test takers' attitude towards the test, the mean score of the attitude scales was calculated and a t-test was carried out to test the significance difference between the obtained value and the set criterion.

#### **Summary of the Findings**

Hypothesis 1 states that there is a significant relationship between each independent variable and the RT-ECPM scores at .05 level. The correlation analysis reveals that each of the independent variables correlates significantly with the RT-ECPM scores. Pearson correlation coefficients indicate a positive and moderate relationship between the dependent and independent variables. The strongest relationship is found between English language attainment and the RT-ECPM scores ( $r = .537, p < .01$ ). Next is the relationship between overall academic achievement and the RT-ECPM scores ( $r = .335, p < .01$ ). The last rank belongs to the relationship between formal content study and RT-ECPM scores ( $r = .246, p < .01$ ). Therefore, Hypothesis 1 is accepted.

For Hypothesis 2, it is stated that the three selected independent variables can individually or in combination significantly predict the RT-ECPM scores at the .05 level. The multiple regression analysis reveals that, though the bivariate correlation analysis indicates that each independent variable has a statistically significant relationship with RT-ECPM scores, only English language attainment is the significant predictor, accounting for 29.7 % of the variance in the RT-ECPM

scores. The overall academic achievement and formal content study are excluded from the prediction equation. The partial correlation analysis indicates that the two variables are not included because their effect on the variance of the RT-ECPM score is shared largely by English language attainment. Adding them in the regression model does not significantly improve the predictability of the regression equation. The multiple regression analysis, therefore, suggests the prediction equation as:

$$\text{RT-ECPM score} = 13.773 + 4.924 (\text{English language attainment})$$

The findings lend support to the results of many prior research studies including Tan (1990) and Clapham (1996) in that language proficiency level is a better predictor than knowledge of the subject area. In conclusion, Hypothesis 2 is accepted as there is one independent variable which is English language attainment that can be a significant predictor of RT-ECPM scores.

For Hypothesis 3, it is stated that the test takers have positive attitudes towards the RT-ECPM using 2.5 points out of a 4-point scale on the test takers' questionnaire as a benchmark. The mean score computed from the test takers' responses is higher than 3 for all items, producing a grand mean score of 3.38. The result from the t-test confirms a significant difference between the obtained value of 3.38 and the set criterion of 2.5. It could be, therefore, concluded that the test takers have positive attitude towards the test. Hence, Hypothesis 3 is also accepted.

## Conclusions

Better understanding of the varied factors that account for the performance in language tests is of obvious interest to parties concerned in the field of language learning and testing. This study attempts to explore the relationship between the three selected independent variables and the reading test scores in the English for Specific Purposes (ESP) area. The Reading Test of English for Consumer Product Marketing (RT-ECPM) was developed and the relationship between its scores and the selected independent variables, which are the formal content study, English language attainment and overall academic achievement, were carried out.

The findings indicate significant relationship between each independent variable and the RT-ECPM scores. However, English language attainment is the only variable that could predict success in the RT-ECPM. The results provide additional empirical evidence to the research conducted by Tan (1990) and Clapham (1996). The findings, however, do not support the studies conducted by Johnson (1981) and Floyd and Carrell (1987) who found that background knowledge plays a more important role than syntactic and lexical knowledge. As Clapham (1996) points out, the effect of background knowledge depends on the specificity of the reading passages. When the text is more specific, the more effect the background knowledge could have. Since this study concerns English for Business Purposes in which there are not many highly technical or scientific words, text specificity is not high. As a result, background knowledge is not found to be a significant predictor of the test scores in this study. In addition, the fact that the data used in the analysis was interval scale which was converted from an ordinal scale or letter grades could also weaken the significance of the relationship of the variables.

Even though there are some significant results found in this study, it is far from being conclusive. There are some limitations in generalizing the results of this study. The limitations involve the limited variables included in the study, only reading skill is tested and generalization must be carefully done as it is limited to the students of a similar context only.

The best predictor suggested by the regression model accounts for approximately 30% of the variance in the reading test scores. The other two variables may contribute indirectly to the remaining variance apart from other variables not included in the study.

### **Implications of the Study**

The implications from the findings of this study could be presented as follows:

1. As English for Specific Purposes can vary with context, the demand for precise specific purpose tests is apparent. The identification of relevant target language use and task is of paramount importance. In this study,

various methods were employed to collect the data. The interviews with subject experts proved to be greatly beneficial. It underscores the fact that in ESP, serious cooperation from the subject experts or content specialists plays a crucial role. In addition, the use of the technological advancement in the linguistics field namely a corpus-based study is highly instrumental in the test development procedures. The methods employed in this study could provide alternative paths for ESP test developers.

2. The findings reveal that English language attainment is the key predictor of success in reading test scores. Based on the findings, the performance in ESP tests is largely related to the level of English language ability study. Thus, the emphasis should be given to enhancing students' English language ability to help them perform well in the ESP tests.
3. The RT-ECPM receives a high rating from the subject experts in terms of congruence with the objectives and the appropriateness of content. It can be useful for the parties concerned. For companies in the field, the test can be employed to identify levels of proficiency as well as the needs of language improvement for their staff. It can also be used in the recruitment process. Further development to test other skills or integration of them could be added to cover the needs in the industry.
4. For universities, RT-ECPM could serve as an instrument for graduating students' self-assessment or as a readiness test. In addition, since the test is developed based on the data gathered in the field, it could equip the universities with the target language use in the Consumer Product Marketing industry which has not been available before. As voiced by Alderson and Bachman (in Douglas 2000:ix), there are not many research studies or publications for those who need to assess language for specific purposes. Teachers and testers have had to take what has been produced for teaching purposes, and seek to convert and adapt it for assessment. This research study could contribute an empirical piece of work to fill the needs. It attempts to bring about a positive washback in language learning and testing in universities particularly in the business area.

5. For theoretical contribution, the findings help extend the knowledge on how formal content study, English language attainment and overall academic achievement relate to test performance in a business test. These selected test takers' variables, though studied extensively in the past, have not been fully investigated in terms of their relationships with the performance in a business-related test. It is shown in the findings that overall academic achievement and formal content study are not as predictive as when they are studied in an English for Academic Purposes (EAP) environment.
6. One of the main problems for research of this kind is how to secure the test takers' cooperation in sitting for the test. It has a lot to do with their attitude and motivation. The findings indicate that the test takers in this study have positive attitudes towards the test. The researcher observed that a thorough explanation about the development and use of the test, particularly the score report for self-assessment contributes greatly to a positive attitude by the test takers. These elements could be replicated by other researchers when dealing with research of a similar nature.

In conclusion, the study helps expand the knowledge in the area of ESP test development and the predictors of the performance in an ESP test. This research study has shown the procedures to develop a test of reading skill in English for Consumer Product Marketing which is the first of its kind in the context of Thailand. The RT-ECPM assumes the potential to provide useful information on a person's ability to read English in the Consumer Product Marketing industry. It also caters to the interested researchers in the English for Specific Purposes field a guideline for developing a test as well as a study concerning predictors. The following section presents the recommendations for future research.

### **Recommendations for Future Research**

Following are a number of areas that could be executed in future studies.

1. In order to enhance the measurement of the magnitude of formal content study, the average grades taken from a combination of the content study courses might be used in the operational definition. For example, if the

number of subjects allows, a study focusing on solely marketing discipline students should be executed. In that case, the average grade achieved in all marketing courses should be taken to represent the level of formal content study.

2. Formal content study can also be differently defined. For instance, it can be the score from a test of Consumer Product Marketing knowledge probably in the first language. In that case, the test needs to undergo a validation process by content specialists for its reliability and validity.
3. There are several alternatives in defining English language attainment. Apart from what has been used in this study, it can be defined as the scores from a test of English proficiency initiated for the project. Other choices are using the scores from readily available English proficiency tests.
4. More individual difference variables other than what the researcher included in the study could be explored. Psychological and social characteristics such as learning strategies and styles, attitude and motivation, and so on, may be related to test performance. Other relevant variables that could account for the variance in the test scores are past school records, L1 reading ability, aptitude in business, etc.
5. The tests for other language skills such as speaking, writing, listening or the integration of them could be developed for future research.
6. To expand generalizability, subjects from various institutions could be added. However, in generalizing the results, differences in contexts must be taken into consideration.
7. This study is limited to correlation and prediction analyses in explaining the relationships among variables. Other research designs like experimental study could be employed to further explore the causal relationship among them.

## Notes

1. The expert informants are the supervisors of the target group. They are all in the directorial level. Years of service in the companies range from 2 to 21 years. Most of the informants are in charge of the overall operation which involves marketing, sales and marketing support functions while there are a few who are responsible particularly for sales & trade marketing or marketing support. They all have the target group as their subordinates. The number of the target group under supervision of the informants ranges from 3-10. All of the subordinates are Thai.
2. The business selected is according to the definition of the term – Consumer Product Marketing businesses. The Securities Exchange of Thailand (SET) has categorized following businesses under the Consumer Products industry: Personal care and Pharmaceutical products, Household products and Fashion products (The Securities Exchange of Thailand, 2004). Apart from the three industries, the researcher has also included Food products (which SET has categorized under the agricultural group of business) into the term Consumer Products as Food products play an important role in Consumer Product Marketing.



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*Appendices*

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## Appendix A Interview Structure

Date \_\_\_\_\_

### Interview structure

#### 1) Informant's data

Name	
Company	
Position	
Division	
Years in service	
No. of subordinates	Thai  Foreign
Experience in recruiting personnel	Level  Any language test upon recruitment?  How?
No. of subordinates in entry to junior management level	
Profile of the target group	
Titles of the target group	
Level of satisfaction with the target group's English language ability	
Organisation chart	(to tick)
Company brochure	“
Name card	“



## 2) Tasks performed in English

<i>Speaking and listening Tasks performed in English</i>	<i>Scores</i>
Conduct presentations in English นำเสนองานเป็นภาษาอังกฤษ	
Discuss in meetings held in English ร่วมแสดงความคิดเห็นในการประชุมที่ใช้ภาษาอังกฤษ	
Communicate in English with outsiders, e.g., customers, suppliers, principals, consultants or advertising agencies สนทนาเป็นภาษาอังกฤษกับลูกค้า ผู้ขายสินค้า เจ้าของผลิตภัณฑ์ ที่ปรึกษา หรือ บริษัท โฆษณา	
Communicate in English with superiors, colleagues or subordinates สนทนาเป็นภาษาอังกฤษกับหัวหน้างาน เพื่อนร่วมงาน หรือ ผู้ใต้บังคับบัญชา	

<i>Writing Tasks performed in English</i>	<i>Scores</i>
Write emails in English to send within the company, to customers, suppliers, etc. เขียนอีเมลภาษาอังกฤษเพื่อส่งให้ภายในบริษัท ให้ลูกค้า และผู้ขายสินค้า เป็นต้น	
Write presentations in English. เขียนการนำเสนอเป็นภาษาอังกฤษ	
Write marketing plans, proposals or reports in English เขียนแผนการตลาด แผนงาน และรายงานเป็นภาษาอังกฤษ	
Write formal documents in English such as outgoing letters, contracts, etc. เขียนเอกสารที่เป็นทางการเป็นภาษาอังกฤษเช่น จดหมายส่งไปภายนอก และสัญญาต่าง ๆ เป็นต้น	

<i>Reading Tasks performed in English</i>	<i>Scores</i>
Read incoming emails in English within the company, customers, suppliers, etc. อ่านอีเมลภาษาอังกฤษที่ส่งมาจากภายในบริษัท จากลูกค้า และผู้ขายสินค้า เป็นต้น	
Read documents in English such as product catalogues or product knowledge sheets, manuals, incoming letters, job descriptions, contracts, circulations, etc. อ่านเอกสารที่จัดพิมพ์เป็นภาษาอังกฤษ เช่น ความรู้เกี่ยวกับผลิตภัณฑ์ คู่มือต่าง ๆ จดหมายจากภายนอก เอกสารอธิบายลักษณะงาน สัญญาต่าง ๆ และจดหมายเวียน เป็นต้น	
Read to analyse sales performance reports, marketing plans / proposals, consumer research reports and market reviews which are in English. อ่านเพื่อวิเคราะห์ยอดขาย แผนการตลาด รายงานการวิจัยผู้บริโภค และบทวิเคราะห์การตลาด ซึ่งจัดทำเป็นภาษาอังกฤษ	
Read English business news or news clippings อ่านข่าวสารธุรกิจภาคภาษาอังกฤษ หรือ ข่าวตัดที่เป็นภาษาอังกฤษ	

## Appendix B

### List of Language and Marketing Textbooks

#### Language textbooks:

1. Comfort, J. and Brieger, N. (1992). *Marketing*. New York: Prentice Hall.
2. Jenkins-Murphy, A. (1981). *The Language of Marketing in English*. New York: Regent Publishing.
3. Mackenzie, I. (1997). *Management and Marketing*. London: Language Teaching Publications.
4. St John, M. (1992). *Marketing*. New York: Prentice Hall.
5. St John, M. (1994). *Advertising and the Promotion Industry*. New York: Prentice Hall.
6. Sweeney, S. (1996). *Test Your Business English: Marketing*. London: Penquin books.

#### Marketing textbooks:

1. Berkowitz, E.N., Kerin, R.A., Hartley, S.W. and Rudelius, W. (2000). *Marketing (6<sup>th</sup> ed.)*. Boston: McGraw-Hill.
2. Lehmann, D.R. and Winer, R.S. (2002). *Analysis for Marketing Planning (5<sup>th</sup> ed.)*. Boston: Mc Graw-Hill.
3. Kotler, P. (2000). *Marketing Management (Millennium ed.)*. New Jersey: Prentice Hall.
4. Stanton, J. , Etzel, M.J., Walker, B.J. (1994). *Fundamentals of Marketing (10<sup>th</sup> ed.)*. New York: Mc Graw-Hill.

## Appendix C

### Test Specifications

Using the framework proposed by Bachman (1990) and Bachman and Palmer (1996), following test specifications are formulated.

#### *a) Facets of the testing environment*

##### Physical conditions and familiarity of the place and equipment

Location: classroom

Noise level: quiet

Temperature and humidity: comfortable

Seating conditions: individual desk with arm rest for writing

Lighting: well lit

Materials and equipments: a pencil, an eraser, a copy of test question paper and an answer sheet

Familiarity: high as the test room is also the subjects' classroom.

##### Personnel

Subjects and the researcher: subjects are familiar with each other. They, however, will meet the researcher for the first time.

##### Time of testing

In the pilot study, though a suggested time frame is one hour, subjects are encouraged to answer all questions and record the time taken. For the main study, time allotment is planned at one hour.

#### *b) Facets of test rubric*

##### Test organization

The test consists of 2 parts of total 55 questions. They are all in multiple-choice format.

**Part 1 (a):** It focuses on vocabulary and terminology used in the Consumer Product Marketing field. There are 10 questions starting with the simple to the more complex ones. This part contributes 18% of the total test.

**Part 1 (b):** This part focuses on meanings of vocabulary used in Consumer Product Marketing. Some of them could also represent both general and Consumer Product Marketing English uses. The subjects are to choose the options with the closest meaning to the word in question. There are 10 questions which constitute another 18% of the test.

**Part 2:** This is the most important part of the test. It constitutes 64% of the total scores of the test. It consists of altogether 6 passages representing 6 various forms of English reading in Consumer Product Marketing. The six forms are based on the source of the text of the most frequent reading tasks found in the interviews (Table 4). They are **product label, incoming email, business news, marketing plan, advertising awareness survey and monthly sales report**. In each passage, questions focus on measuring the reading comprehension abilities of the test-takers. The abilities to be measured or constructs in this part of the test are:

- a) The ability to understand main ideas in short and long texts.
- b) The ability to understand details and identify specific information in short and long texts.
- c) The ability to draw inferences based on information in the text.
- d) The ability to understand information in non-verbal media such as charts, maps, graphs, diagrams which are generally present in the work of this field.

#### Instructions

Language and channel: in simple target language (English). The instructions are in written form.

Specifications of procedures and tasks: the test-takers are to blacken the ovals corresponding the answer chosen in the answer sheets.

Explicitness of criteria for correctness: As all the questions are in multiple-choice format, the criteria are quite clear. An answer key is provided for the scorer.

Scoring method: 1 point for 1 question. Following criteria are used:

81 % up	=	Excellent (45 or more out of 55)
71-80%	=	Good (39 to 44 out of 55)
61-70%	=	Fair (34 to 38 out of 55)
51-60%	=	Poor (28 to 33 out of 55)
50% down	=	Need significant improvement (27 or less out of 55)

***c) Facets of the input***

Format

Channel:	visual
Mode:	receptive
Form:	language
Language:	target
Identification of problem:	general
Degree of speededness:	moderate

Language characteristics

Length: short in Part 1 (a) and (b). Relatively long in Part 2.

Propositional content:

- Vocabulary: highly related to Consumer Product Marketing
- Degree of contextualization: embedded
- Distribution of new information: compact
- Type of information: mainly factual and descriptive
- Topic: highly relevant to Consumer Product Marketing
- Genre: Business English

Organisational characteristics: reading passages for comprehension requires understanding in context and vocabulary knowledge. Cohesion and rhetorical organization exists mainly in Part 1(b) and Part 2.

***d) Facets of expected response***

Format:

Channel: visual

Mode: productive

Type of response: selected

Form: language

Language of response: target

Language characteristics:

Length: very short due to the multiple-choice format.

Propositional content and organizational characteristics: expected response focuses on reading comprehension, analytical ability to select the appropriate answers.

***5) Relationship between input and response:*** Nonreciprocal

***6) Topical characteristics:*** Topics are highly relevant to Consumer Product Marketing.



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**Appendix D*****Reading Test of  
English for Consumer Product Marketing*****( for pilot study)****The test consists of 2 parts (14 pages)****Part 1 (a): 10 questions****(b): 10 questions****Part 2: 35 questions****Total 55 questions (55 points)****Time: 1 hour****Instruction: Blacken your answers in the answer sheet provided.**

**Part 1** Questions 1-20 (20 points)

(a) **Instructions: Blacken the correct answers (1, 2, 3 or 4) in the answer sheet provided.**

1. The proportion of the total market which one company controls is generally called market \_\_\_\_\_.
  1. cap
  2. share\*
  3. trend
  4. value
2. The set of marketing tools consisting of the four Ps : product, price, place and promotion is known as the marketing \_\_\_\_\_.
  1. cluster
  2. core
  3. mix\*
  4. model
3. A \_\_\_\_\_ refers to a specific promotion activity over a limited period of time.
  1. campaign\*
  2. publicity
  3. strategy
  4. theme
4. All advertisements aim to build brand \_\_\_\_\_ which is generally consumers' knowledge of the existence of a brand.
  1. awareness\*
  2. concept
  3. equity
  4. loyalty
5. A/An \_\_\_\_\_ is a paid communication in the media particularly in TV and radio designed to inform and persuade people about products and services.
  1. advertorial
  2. commercial\*
  3. editorial
  4. serial
6. Our new product line takes sales away from the existing ones because they are not sufficiently differentiated. Now we are facing the problem of \_\_\_\_\_.
  1. cannibalization\*
  2. competition
  3. deterioration
  4. misallocation
7. A product can be distinguished from others through forms, features and benefits. The act of designing a product and its image to occupy a particular place in the target consumers' mind is called \_\_\_\_\_.
  1. branding
  2. identifying
  3. registering
  4. positioning\*
8. Marketers now put a lot of emphasis on \_\_\_\_\_ which deals with classifying customers into distinct groups of different requirements or buying habits.
  1. diversification
  2. discrimination
  3. integration
  4. segmentation\*



9. The new-comer employs \_\_\_\_\_ strategy by offering its products at lower prices and advertising heavily.
- |                 |                  |
|-----------------|------------------|
| 1. demarketing  | 2. merchandising |
| 3. penetration* | 4. substitution  |
10. This company is good in \_\_\_\_\_ as they usually select a small, specialized part of a market that is unlikely to attract major players in the market.
- |                          |                     |
|--------------------------|---------------------|
| 1. brand advertising     | 2. niche marketing* |
| 3. product distributions | 4. public relations |

**(b) Instructions: Choose the best answer which is closest in meaning to the word underlined. Blacken the correct answers (1, 2, 3 or 4) in the answer sheet.**

### *Brand name does count*

Selecting a good brand name is **(11)** definitely a big deal. Some brand names are so great that they contribute to the success of products. Some could be so poor that they brought about product failures. Here presents the desirable **(12)** attributes of a brand and its particular arguments.

Some says a good brand must be **(13)** distinctive. Good brand names are basically easy to pronounce, spell and remember. Such brands are Lux, Fab, Breeze and Fuji. However, some brand names might not meet this **(14)** criterion but still be quite successful such as Au bon Pain (bakeries), Shokubutsu Monogatari (personal care), etc.

Of course a good brand should not carry a negative meaning especially when a brand is **(15)** launched into other countries with different languages. For example, Nova, a car's brand, is not a good name in Spanish-speaking countries as it means "doesn't go". 7up sounded cool in many languages, but in Shanghai, China, it means 'death through drinking' in **(16)** a local dialect. Unsurprisingly, the sale suffered!

Some companies believe in multibranding. P&G's PertPlus shampoo is sold as Rejoice in Hong Kong, Vidal Sassoon in the U.K. and PertPlus in the Middle East. They employ **(17)** multiple brand names for the same product when competing **(18)** globally. Others believe in brand extension. For instance, Virgin, known originally for its music stores and now primarily for its airlines, steps into planes, financial services, cinemas and more. All are under the same brand name 'Virgin' without concern for brand **(19)** dilution.

A brand is undeniably a **(20)** significant company asset. It is and will continue to be a major issue in product strategy.

11. 1. certainly\* 2. extraordinarily  
3. probably 4. questionably
12. 1. advantages 2. levels  
3. qualities\* 4. requirements
13. 1. compatible 2. concise  
3. familiar 4. unique\*
14. 1. analysis 2. benchmark\*  
3. category 4. scenario
15. 1. exploited 2. introduced\*  
3. maintained 4. transferred
16. 1. distinct 2. foreign  
3. regional\* 4. remote
17. 1. individual 2. infinite  
3. restricted 4. various\*
18. 1. aggressively 2. exclusively  
3. internationally\* 4. selectively
19. 1. augmentation 2. maintenance  
3. reinforcement 4. undermining\*
20. 1. crucial\* 2. relevant  
3. sufficient 4. trivial

**Part 2** Questions 21-55 ( 35 points)

**Instructions:** Choose the correct answer. Blacken answers (1, 2, 3 or 4) in the answer sheet.

Passage 1 (Questions 21-23)

On a hand cream packaging, the following message is printed.

**The Excella Hand Cream** with antimicrobial protection is a superbly blended cream that applies smoothly and dries without odor. It inhibits the growth of a broad spectrum of bacteria and fungi including those causing food poisoning and infections. Every application remains effective for over 5 hours, enabling long-lasting protection against cross-contamination. The product is homogenized to enhance product performance, stability and a long shelf life of minimum 3 years. It is completely safe and non-irritating.

**Directions for use:** Wash and dry hands thoroughly. Apply a small amount on your palms, allowing 2-3 minutes to dry. Use 3 times a day or every 5 hours to keep your hands clean.

21. What is this product for?
1. Washing hands for good hygiene
  2. Smoothing and whitening hand skin
  3. Preventing contamination through hands\*
  4. Making hands soft, moist and releasing stress
22. What can consumers also expect from the product?
1. It provides a nice scent on hands.
  2. They will be safe and free from food poisoning.
  3. Their hands will be softer and smoother after repeated use.
  4. The product will remain in effect for many hours after each use.\*
23. How long will it take before the product expires?
1. 2-3 minutes
  2. more than 5 hours
  3. minimum 3 months
  4. at least 3 years\*

Passage 2 (Questions 24-27)

Your superior forwards to you this email from the head office. It says.

<p>From : Jim Edler &lt;Edler.J@united.com&gt;          To : Thawatchai &lt;Teerasut.T@united.com&gt;, David &lt;Baker.D@united.com&gt;, Teresa &lt;Matti.T@united.com&gt;, Ruth &lt;Benton.R@united.com&gt;          Subject : Annual agency review</p> <p>Dear Marketing Department Heads in all regional offices,</p> <p>As you all know, our company has a policy of evaluating our assigned agencies on an annual basis. In the last meeting on formal agency review, the committee has concluded on the evaluation procedures. They are attached for your study and execution.</p> <p>There are altogether five areas of evaluation of which you can see more details in the attachment.</p> <ol style="list-style-type: none"> <li>1) Agency and Client Relationship</li> <li>2) Media Planning Performance</li> <li>3) Creative Work and Production Quality</li> <li>4) Sales Promotion Initiation and Involvement</li> <li>5) Agency Billings and Business Results</li> </ol> <p>Please note the following schedule:</p> <table> <tr> <td>Enquiries on evaluation form</td> <td>by January</td> <td>7</td> </tr> <tr> <td>Submission of completed form by regional offices</td> <td>January</td> <td>15</td> </tr> <tr> <td>Worldwide summary by head office ready</td> <td>February</td> <td>20</td> </tr> </table> <p>Best regards,          Jim Edler / Global Communications Dept.</p>	Enquiries on evaluation form	by January	7	Submission of completed form by regional offices	January	15	Worldwide summary by head office ready	February	20
Enquiries on evaluation form	by January	7							
Submission of completed form by regional offices	January	15							
Worldwide summary by head office ready	February	20							

24. What does “Agency” in this email refer to?

1. Advertising Agency\*
2. Distribution Agency
3. Government Agency
4. Travel Service Agency

25. What does the Agency do?

1. Plan the business trip arrangements.
2. Implement the regulations related to the company.
3. Distribute the company’s products through intermediaries.
4. Provide communication and promotion services to customers.\*

26. What should the staff in regional offices do after receiving this email?

1. Acknowledge the receipt of the email.
2. Ask any questions by the first week of January.\*
3. Fill in the form and send it no later than February.
4. Submit the worldwide evaluation result to the head office.

27. According to the email, which statement is **NOT** true ?

1. The email sender works for the agency.\*
2. The agency review is done once a year.
3. There is a file attached with this email.
4. Agency expenditure is to be analyzed with sales performance.

Passage 3 (Questions 28-32)

Here is the news in the business section you read today.

## C h a n g i n g   B a t t l e f i e l d

The competition in the discount store business will be even tougher in the coming year. The number of discount stores is expected to rise 25 % outside of Greater Bangkok. Recent research showed that 80% of consumers in Bangkok shop at a hypermarket once a month, compared with only 35% of consumers in the provinces. Therefore, a great growth potential exists there. Among all superstores, BIG T has 36% of the market with 52 stores, Thai Max has 20% with 29 stores, C-Save has 28% with 41 stores and V-Care 16 % with 23 stores.

The secret success factor of BIG T lies in its excellent CRM system. It was found that the top 5% of customers represented 25% of sale while the bottom 30% accounted for only 2% of the total sales. Instead of treating customers equally, they started to embark on a program based on the frequency of purchase and the amount spent. The program offered points on purchases and a small rebate to loyal shoppers. While these all were not new, it allowed BIG T to grasp invaluable information used to build a very powerful database of customers. Such information allows BIG T to learn about what products they are and are not buying, what their favourite departments are, as measured by spending. Customers start to receive vouchers for items they like to buy and special offers in the departments they have never visited. Top customers got calls from the store manager as well as other privileges. As a result, BIG T enjoys greater market share, gains more satisfied customers and enormously adds up its profit. This is a prime example of the benefit of knowing your customers and converting such knowledge into a course of productive action.

28. What is the outlook of the discount store market in the coming year?

1. Slower market movement
2. More competitors entering the market
3. Fiercer rivalry due to existing stores' expanding coverage\*
4. More market demand and opportunities in Greater Bangkok

29. What is the direction for business expansion of discount stores next year?
1. Acquire other super stores.
  2. Penetrate into upcountry areas.\*
  3. Increase outlets in Greater Bangkok.
  4. Add more selling space in the existing outlets.
30. What does BIG T do to enhance their customer loyalty program?
1. Give discount coupons for goods that customers prefer.\*
  2. Provide large volume discount to loyal customers.
  3. Offer free gifts on purchase for all customers.
  4. Invest aggressively in advertising campaigns.
31. What is the criterion used in BIG T's customer classification?
1. The frequency of visits by customers
  2. The number of units bought from the store
  3. The level of customer satisfaction from the survey
  4. The value of a customer's spending in the store\*
32. Why is the CRM system useful?
1. It reveals data on company performance and profit.
  2. It helps the company gain insight on the customers' spending.\*
  3. It consolidates information on market share for the company.
  4. It provides the inventory of the products customers like to buy.

Passage 4 (Questions 33-40)

This is a part of the marketing plan of the newly launched 'Riche' tomato ketchup.

***Marketing plan  
'Riche' Tomato Ketchup***

**Background**

The Ketchup market in 2004 is estimated at 180 million baht or 3,500 tons. The growth rate is forecasted at 5 % per annum. The core market is in the middle class up segment in national urban areas.

**Marketing objectives**

1. To establish a foothold in the tomato ketchup market with the theme – “Tasty & Healthy with Riche”.
2. To achieve a sales volume of 36 million baht or 20% market share in 2005.

**Marketing strategies**

Product:

Product positioning: Riche is a premium quality product with authentic taste of tomato ketchup.

Unique selling point: Riche offers just right thickness of texture and exquisite richness of authentic tomato ketchup.

Supporting evidence: Riche is made of fresh ripe juicy tomatoes, no artificial flavour, colour or preservative added.

Target consumers: Housewives aged 20-40 years old, C+ SES up, living in the urban areas.

Price:

There are three groups of product in this market: standard, premium and imported. Premium brands are priced 40% higher than standard ones. In turn, imported brands' prices double those of the premium brands. Riche will be priced approximately 10% lower than other premium brands in order to gain trial in the introductory period.

Distribution:

The objective is to achieve at least 70% of total national condiment market outlets through a highly competitive trade promotion campaign and rebate program. A 10%-to-sale budget is allocated for this purpose as well as the entrance fee in major modern trade outlets.

Promotion:

The objective is to stimulate trial and repeat purchase through in-store promotions with a collection of give-away premiums.

33. What is the market size of tomato ketchup?
1. 36 million baht
  2. 180 million baht\*
  3. 20 % of total market
  4. 70% of distribution outlets
34. What is the trend of the market?
1. Gradually declining
  2. Rapidly shrinking
  3. Slightly increasing\*
  4. Aggressively diversifying
35. What is the expectation in the first year for Riche?
1. To be a market leader
  2. To be known as a high quality imported brand
  3. To introduce products covering all price ranges
  4. To succeed in grasping one-fifth of the total market\*
36. Who are the target consumers of Riche?
1. Working mothers living in the cities\*
  2. Teenagers studying university levels
  3. Schoolchildren in the upcountry provinces
  4. Retired employees who are health-conscious
37. What helps justify the product's unique selling point?
1. It is an imported quality brand.
  2. It is free from non-natural ingredients.\*
  3. It is made of ripe juicy grapefruit.
  4. It offers various kinds of vitamins.
38. How is Riche's price compared to the standard brands?
1. 10% lower
  2. 20% lower
  3. 30% higher\*
  4. 40% higher
39. What is the 10%-to-sale budget allocated for?
1. Trade incentive scheme\*
  2. Free sampling in the introductory phase
  3. Consumer promotion in the modern trade outlets
  4. Advertising with the theme – Tasty & Healthy with Riche



40. What is the main objective of the consumer promotion ?

1. To reduce cost and overhead
2. To widen distribution coverage
3. To lessen trial and repeat purchase
4. To speed up buying decision and sale volume \*

Passage 5 (Questions 41-45)

Your Client Service Executive sent you the following research findings regarding the advertising awareness for the second quarter (Q 2) compared to the previous quarter (Q 1) and the corresponding media spending.

***Quarterly Advertising Awareness Survey  
Top Five in Bangkok***

Brand	Position		Total spontaneous awareness (%)		Top-of-mind awareness (%)		Media spending (mil. baht)	
	Q 2	Q 1	Q 2	Q 1	Q 2	Q 1	Q 2	Q 1
<b>Silky</b> (hair care)	1	3	12.0	8.6	6.8	5.0	143.5	136.8
<b>Zaza</b> (beverage)	2	9	9.6	4.3	4.6	1.3	164.8	52.0
<b>United</b> (mobile phone)	3	5	8.5	6.7	4.4	3.9	139.3	96.7
<b>Zedric</b> (car)	4	1	6.7	11.9	4.0	7.1	89.5	124.5
<b>Maxima</b> (energy drink)	5	2	6.4	9.8	3.3	6.2	112.1	140.6

Source : 500 respondents in Bangkok, all adults aged 18-50.

Remark:

1. Respondents were asked: "During the past 3 months, which brands have you seen or heard advertised ?"
2. Total spontaneous awareness comes from frequency count in percentage of the advertising of the brands mentioned by respondents. Top-of-mind awareness is that of the first brand mentioned by the respondents.
3. Media expenditure concerns with the following media only: TV, radio, newspapers, magazines, cinema and out-door.

In this quarter, Silky had the highest advertising awareness due to its new campaign “Hair Spa @ Home” which was launched last month. Both the total spontaneous and top-of-mind awareness were the highest. However, the first runner-up in advertising brand awareness, Zaza, was the top media spender this quarter. Zaza, ranked no. 9 in the last quarter, jumped up to be no. 2 in this quarter with huge media spending. This quarter was generally the peak season for beverage products. United increased its media expenditure this quarter and achieved in leveling up its advertising awareness to no. 3. Zedric markedly went down from the top place to no. 4. It might be partly explained by the big cut in media budget this quarter. The fifth rank belonged to Maxima, who reduced the media budget drastically as the brand prepared to introduce its new logo and slogan next month according to the press release done at the end of last month.

41. What is the purpose of an advertising awareness survey ?
1. To understand a brand’s pricing strategy.
  2. To obtain information on consumers’ advertising recall.\*
  3. To gain data on the effectiveness of a promotion campaign.
  4. To collect information on customers’ purchasing habits.
42. According to the passage, what could be the cause of Zaza’s increase in media spending in the second quarter?
1. The media cost went down strikingly.
  2. The competitors increased media expenditure.
  3. It was the selling period of this product category.\*
  4. It aimed to support the campaign “Hair Spa @ Home”.
43. According to the table, which brand was the most consistent in terms of its media spending in both quarters?
1. Silky\*
  2. Zaza
  3. United
  4. Zedric
44. According to the survey report, which statement is **NOT** true?
1. Silky ranked no. 1 in terms of total advertising awareness in Q2.
  2. Zaza spent more in media and succeeded in gaining higher awareness in Q2.
  3. United’s media spending increased the highest from Q1 to Q2 compared to the other brands.\*
  4. Maxima reduced its media spending in Q2 as its logo was going to be replaced.
45. If you are in charge of “Zedric” brand, what did the survey finding tell you?
1. Zedric’s advertising awareness ranked no. 4 compared to other cars’.
  2. The cut in the media budget did not affect the advertising awareness.
  3. The second quarter presented the best selling opportunity for Zedric.
  4. Zedric’s advertising awareness in Q2 went down when compared to Q1.\*

Passage 6 (Questions 46-55)

The sale of your company's body lotion brand went down this month. Here comes the monthly sales report from your distributing company.

**Monthly Sales Report  
For July 2004**

Sales this month were 15.6 % lower than the budget and 10.6% lower than the same period last year. The main factors contributing to the sales drop were shortage in the 250-ml. size which is the best-selling item, the new promotion campaign introduced by the key competitor and the severe drought in the northeastern region.

***Shortage of the 250-ml. size***

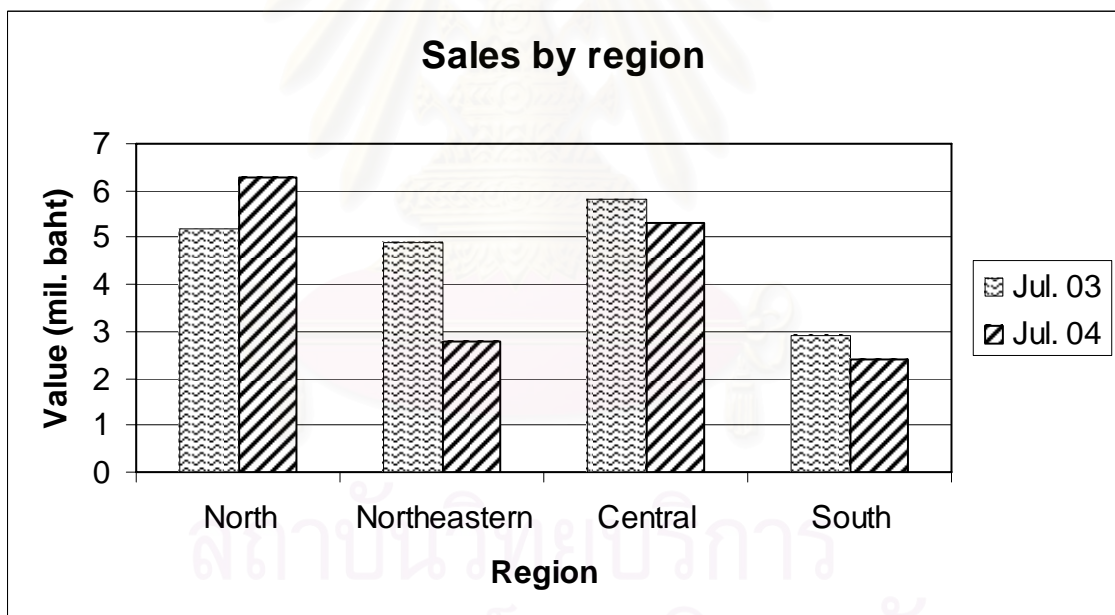
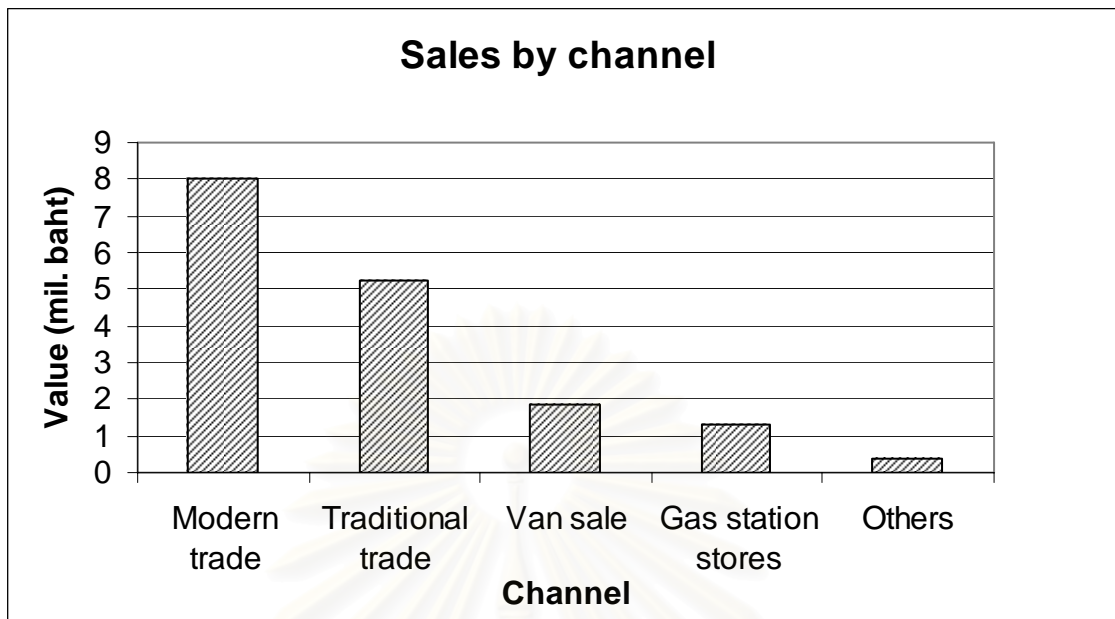
This is the primary factor adversely affecting sales. In the first 10 days, all orders were backlogged. Those orders amounted to 4.8 million baht. However, all the orders, by now, had already been processed and goods were delivered. This, of course, reflects the loss of selling opportunity that could not be replenished during the month.

***New campaign by the competitor***

Coupling with our supply shortage, our major competitor, Sensual, has launched a trade promotion campaign that is quite appealing to the customers. The campaign offers 2% kickback for every 100-case purchase. This campaign well attracts the trade customers who started to switch to buy more of Sensual. Since the campaign will last for 3 months, we could expect its impact on our sales in the coming months. A corrective and competitive measure is urgently needed.

***Drought in the northeastern region***

The drought covered a number of our key markets, particularly in Khon Kaen, Nakornratchasima and Udonthani. The persisting drought since last month started to affect people's purchasing power. Generally this region represents approximately 26% of total sales each month. Sales in this region for this month were 2.8 million baht which constituted 16 % of total sales.



46. What is the situation facing the marketing department?
1. Sales dropped in all regions across the board.
  2. Sales diminished owing to the flaws in the products.
  3. Sales were less than the expected and past performance.\*
  4. Sales declined due to the seasonality of the product category.
47. What is the major cause of the sales decrease?
1. Insufficient inventory of the core item\*
  2. More attractive offer by other company
  3. Natural irregularity in the provinces
  4. Unsuccessful campaign of the company

48. Why were the first 10-day orders backlogged?
1. Manufacturing facility closed down.
  2. Delivery unit was not ready by then.
  3. Quality problem of the product existed.
  4. There was not an adequate quantity of products in the warehouse.\*
49. Why do the trade customers start to buy more of Sensual?
1. It has more selling opportunities.
  2. The product has superior quality and advertising.
  3. A higher benefit is offered with a large-volume purchase.\*
  4. The product offers more product benefits and promotions to consumers.
50. What is the effect of drought in the northeastern region?
1. Shortage in supply of the 250-ml size
  2. Poorer sales result in the region\*
  3. Increase in consumers' demand for the product
  4. More competitors entering the market
51. What did the distributor request from the marketing department?
1. Initiate the counteracting promotion with Sensual.\*
  2. Speed up the production of the 250-ml. size.
  3. Revise the sales budget for northeastern region.
  4. Launch a consumer promotion campaign to boost up buying power.
52. What could be concluded from the sales by channel illustration ?
1. Traditional trade sales were at par with the van sales.
  2. Sales in gas station store exceeded that of van sales.
  3. The product is the best-selling brand in the modern trade channel.
  4. Modern trade commanded the highest contribution to total sales.\*
53. What is the misinterpretation of the sales by region illustration ?
1. Northeastern region faced the most severe sales drop.
  2. Sales in central region constituted the highest percentage of July 2004's sales.\*
  3. All regions except northern had poorer performance compared to last year.
  4. Southern region sold the least in July 2004 compared to other regions.
54. What took place in July 2003?
1. Central region sales were the highest compared to other regions'.\*
  2. Northeastern sales were close to that of southern region.
  3. Northern region was the lowest selling region.
  4. Sales were higher than July 2004 sales in all regions.
55. What could the marketing department do to prevent the problem in the future?
1. Provide measures to prevent drought.
  2. Prevent the competitors' new campaign launch.
  3. Offer a highly competitive trade promotion scheme.\*
  4. Assure the quick delivery of products to wholesalers.

**This is the end of the test**

## Appendix E

### Item-Objective Congruence Evaluation Form

#### *Reading Test of English for Consumer Product Marketing*

The objectives of this test are to measure:

A) Ability to understand vocabulary and terminologies used in the Consumer Product Marketing field.

B) Comprehension

For comprehension, it involves:

- 1) Ability to understand main ideas in short and long texts.
- 2) Ability to understand details and identify specific information in short and long texts.
- 3) Ability to draw inferences based on information in the text.
- 4) Ability to understand information in non-verbal media such as charts, maps, graphs, diagrams which are generally presented in the work of this field.

#### **Guideline for evaluation**

Please put a tick ( ✓ ) in the rating box (High, Medium, Low) the degree to which the item (question) measures the ability indicated in the objectives according to your opinion. Please also specify comments for each item.

H = High degree of congruence with the objective.

M = Medium degree of congruence with the objective.

L = Low degree of congruence with the objective.

Part 1 (a): Marketing terminologies

Objectives of this part: To assess the ability to understand terminologies used in Consumer Product Marketing field.

Item	H	M	L	Comments
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Is the content in this part appropriate ?

\_\_\_\_\_ Yes      \_\_\_\_\_ No

Comments \_\_\_\_\_  
\_\_\_\_\_

**Part 1 (b): Marketing and general vocabulary**

**Objectives:** To assess the ability in reading a marketing-related passage and measure the knowledge of vocabulary which are ordinarily encountered in the field.

**Topic:** “*Brand name does count*”

Item	H	M	L	Comments
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

Is the content in this part appropriate ?

\_\_\_\_\_ Yes \_\_\_\_\_ No

Comments \_\_\_\_\_  
\_\_\_\_\_

## Part 2: Reading comprehension

Passage 1:

Objectives: To assess

- 1) Ability to understand main ideas in the short text related to product information on product packaging.
- 2) Ability to understand details and identify specific information.
- 3) Ability to draw inferences based on information in the text.

Topic : ***Hand Cream product information – “Excella”***

Item	Ability to	H	M	L	Comments
21	Understand main ideas.				
22	Understand details.				
23	Understand details.				

Is the content in this part appropriate ?

\_\_\_\_\_ Yes \_\_\_\_\_ No

Comments \_\_\_\_\_  
\_\_\_\_\_

Passage 2:

Objectives: To assess

- a) Ability to understand main ideas in the short text such as in an email.
- b) Ability to understand details and identify specific information.
- c) Ability to draw inferences based on information in the email.



**Topic: *Email from the head office – “Annual Agency Review”***

Item	Ability to	H	M	L	Comments
24	Understand the main ideas in the text.				
25	Draw inferences regarding the role of “Agency”.				
26	Understand details.				
27	Understand details.				

Is the content in this part appropriate ?

\_\_\_\_\_ Yes      \_\_\_\_\_ No

Comments \_\_\_\_\_  
\_\_\_\_\_

Passage 3:

**Objectives:** To assess

- Ability to understand main ideas in a longer text such as in business news.
- Ability to understand details and identify specific information.
- Ability to draw inferences based on information in the news.

**Topic: *Business news – “Changing Battlefield”***

Item	Ability to	H	M	L	Comments
28	Understand the main ideas.				
29	Understand details.				
30	Understand details .				
31	Understand details.				
32	Draw inferences.				

Is the content in this part appropriate ?

\_\_\_\_\_ Yes      \_\_\_\_\_ No

Comments \_\_\_\_\_  
\_\_\_\_\_

Passage 4:

Objectives: To assess

- a) Ability to understand main ideas in a marketing plan which involves marketing objectives and planning on marketing mix (product, price, distribution and promotion).
- b) Ability to understand details and identify specific information.
- c) Ability to draw inferences based on the information in the marketing plan.

Topic: *Marketing Plan – “Riche “ Tomato Ketchup*

Item	Ability to	H	M	L	Comments
33	Understand details.				
34	Draw inferences.				
35	Understand details.				
36	Draw inferences.				
37	Understand details.				
38	Draw inferences.				
39	Understand details.				
40	Understand the main ideas.				

Is the content in this part appropriate ?

\_\_\_\_\_ Yes \_\_\_\_\_ No

Comments \_\_\_\_\_  
\_\_\_\_\_

Passage 5:

Objectives: To assess

- a) Ability to understand main ideas and details in an advertising survey which people in the Consumer Product Marketing are generally needed to be informed.
- b) Ability to understand details and identify specific information.
- c) Ability to draw inferences based on the information provided in the survey.
- d) Ability to understand information presented in the table.

Topic: *Quarterly Advertising Awareness Survey*

Item	Ability to	H	M	L	Comments
41	Draw inferences.				
42	Understand details.				
43	Understand data presented in the table.				
44	Understand details.				
45	Understand data presented in the table.				

1. Is the content in this part appropriate ?

\_\_\_\_\_ Yes      \_\_\_\_\_ No

Comments \_\_\_\_\_

\_\_\_\_\_

2. Is the table presentation appropriate ?

\_\_\_\_\_ Yes      \_\_\_\_\_ No

Comments \_\_\_\_\_

\_\_\_\_\_

Passage 6:

Objectives: To assess

- a) Ability to understand main ideas and details in a monthly sales report which is one of the important documents extensively used in the field.
- b) Ability to understand details and identify specific information.
- c) Ability to draw inferences based on information in the sales report.
- d) Ability to understand data presented in the graphs.

**Topic: *Monthly Sales Report***

Item	Ability to	H	M	L	Comments
46	Understand main ideas.				
47	Understand details.				
48	Draw inferences.				
49	Understand details.				
50	Understand main ideas.				
51	Draw inferences.				
52	Draw inferences from graphs.				
53	Draw inferences from graphs.				
54	Draw inferences from graphs.				
55	Draw inferences from overall information.				

1. Is the content in this part appropriate ?

\_\_\_\_\_ Yes \_\_\_\_\_ No

Comments \_\_\_\_\_  
\_\_\_\_\_

2. Is the graphic presentation appropriate ?

\_\_\_\_\_ Yes \_\_\_\_\_ No

Comments \_\_\_\_\_  
\_\_\_\_\_

**Overall evaluation**

Please put a tick ( ✓ ) in front of the answer YES or NO and specify the comments according to your opinion.

1. Is the test appropriate to measure the English reading ability of the graduating students ?

\_\_\_\_\_ YES \_\_\_\_\_ NO

Comments: \_\_\_\_\_  
\_\_\_\_\_

2. Is the test appropriate to measure the English reading ability of the marketing staff working in entry level to junior management ?

\_\_\_\_\_ YES \_\_\_\_\_ NO

Comments: \_\_\_\_\_

\_\_\_\_\_

3. Does the content represent various reading situations and text types found in Consumer Product Marketing industry ?

\_\_\_\_\_ YES \_\_\_\_\_ NO

Comments: \_\_\_\_\_

\_\_\_\_\_

4. Does the language used in the test represent the language found in the real working environment in the field ?

\_\_\_\_\_ YES \_\_\_\_\_ NO

Comments: \_\_\_\_\_

\_\_\_\_\_

5. Is the structure of the test (2 parts, 55 questions) appropriate ?

\_\_\_\_\_ YES \_\_\_\_\_ NO

Comments: \_\_\_\_\_

\_\_\_\_\_

6. Is the time allotment for the test appropriate ?

\_\_\_\_\_ YES \_\_\_\_\_ NO

Comments: \_\_\_\_\_

\_\_\_\_\_

**Thank you for your time and kind attention.**

Signature \_\_\_\_\_ Date \_\_\_\_\_

## Appendix F

### A Priori Instrument Validation Result

Note : (A) = 5 lecturers  
(B) = 3 senior executives

Part 1 (a):  
Marketing terminology

Item	(A)			(B)			Total		
	H	M	L	H	M	L	H	M	L
1	<b>80%</b>	20%		<b>100%</b>			<b>88%</b>	13%	
2	<b>80%</b>	20%		<b>100%</b>			<b>88%</b>	13%	
3	<b>80%</b>	20%		<b>100%</b>			<b>88%</b>	13%	
4	<b>80%</b>	20%		<b>67%</b>	33%		<b>75%</b>	25%	
5	<b>80%</b>	20%		<b>100%</b>			<b>88%</b>	13%	
6	<b>60%</b>	40%		<b>100%</b>			<b>75%</b>	25%	
7	<b>60%</b>	40%		33%	<b>67%</b>		<b>50%</b>	<b>50%</b>	
8	<b>80%</b>	20%		<b>67%</b>		33%	<b>75%</b>	13%	13%
9	<b>80%</b>	20%		<b>100%</b>			<b>88%</b>	13%	
10	<b>80%</b>	20%		<b>100%</b>			<b>88%</b>	13%	

Part 1 (b):  
Marketing and general vocabulary

Item	(A)			(B)			Total		
	H	M	L	H	M	L	H	M	L
11	<b>40%</b>	20%	<b>40%</b>	<b>67%</b>	33%		<b>50%</b>	25%	25%
12	<b>80%</b>	20%		<b>100%</b>			<b>88%</b>	13%	
13	<b>80%</b>	20%		<b>100%</b>			<b>88%</b>	13%	
14	<b>40%</b>	<b>40%</b>	20%	<b>100%</b>			<b>63%</b>	25%	13%
15	<b>60%</b>	40%		<b>100%</b>			<b>75%</b>	25%	
16	40%	<b>60%</b>		33%	<b>67%</b>		38%	<b>63%</b>	
17	20%	<b>60%</b>	20%	<b>100%</b>			<b>50%</b>	38%	13%
18	<b>40%</b>	<b>40%</b>	20%	<b>67%</b>		33%	<b>50%</b>	25%	25%
19	<b>60%</b>	40%		<b>67%</b>	33%		<b>63%</b>	38%	
20	<b>40%</b>	<b>40%</b>	20%	<b>67%</b>		33%	<b>50%</b>	25%	25%

## Part 2: Reading comprehension

## Passage 1: Hand Cream product information "Excella"

Item	(A)			(B)			Total		
	H	M	L	H	M	L	H	M	L
21	<b>100%</b>			<b>67%</b>	33%		<b>88%</b>	13%	
22	<b>100%</b>			<b>67%</b>	33%		<b>88%</b>	13%	
23	<b>100%</b>			<b>67%</b>		33%	<b>88%</b>		13%

## Passage 2: Email - "Annual Agency Review"

Item	(A)			(B)			Total		
	H	M	L	H	M	L	H	M	L
24	<b>80%</b>	20%		<b>100%</b>			<b>88%</b>	13%	
25	<b>100%</b>			<b>100%</b>			<b>100%</b>		
26	<b>80%</b>	20%		<b>100%</b>			<b>88%</b>	13%	
27	<b>100%</b>			<b>67%</b>	33%		<b>88%</b>	13%	

## Passage 3: Business news - "Changing Battlefield"

Item	(A)			(B)			Total		
	H	M	L	H	M	L	H	M	L
28	<b>60%</b>	40%		<b>67%</b>	33%		<b>63%</b>	38%	
29	<b>80%</b>	20%		<b>100%</b>			<b>88%</b>	13%	
30	<b>80%</b>	20%		<b>100%</b>			<b>88%</b>	13%	
31	<b>80%</b>	20%		<b>100%</b>			<b>88%</b>	13%	
32	<b>60%</b>	40%		<b>100%</b>			<b>75%</b>	25%	

## Passage 4: Marketing Plan - "Riche Tomato Ketchup"

Item	(A)			(B)			Total		
	H	M	L	H	M	L	H	M	L
33	<b>80%</b>	20%		<b>67%</b>	33%		<b>75%</b>	25%	
34	<b>80%</b>	20%		<b>100%</b>			<b>88%</b>	13%	
35	<b>80%</b>	20%		<b>100%</b>			<b>88%</b>	13%	
36	<b>80%</b>	20%		<b>100%</b>			<b>88%</b>	13%	
37	<b>60%</b>	40%		<b>100%</b>			<b>75%</b>	25%	
38	<b>80%</b>	20%		<b>100%</b>			<b>88%</b>	13%	
39	<b>80%</b>	20%		<b>100%</b>			<b>88%</b>	13%	
40	<b>60%</b>	20%	20%	<b>100%</b>			<b>75%</b>	13%	13%

## Passage 5: Quarterly Advertising Awareness Survey

Item	(A)			(B)			Total		
	H	M	L	H	M	L	H	M	L
41	<b>60%</b>	20%	20%	<b>100%</b>			<b>75%</b>	13%	13%
42	<b>80%</b>	20%		<b>100%</b>			<b>88%</b>	13%	
43	<b>80%</b>	20%		<b>67%</b>	33%		<b>75%</b>	25%	
44	<b>80%</b>	20%		<b>33%</b>	67%		<b>63%</b>	38%	
45	<b>80%</b>	20%		<b>67%</b>	33%		<b>75%</b>	25%	

## Passage 6: Monthly Sales Report

Item	(A)			(B)			Total		
	H	M	L	H	M	L	H	M	L
46	<b>60%</b>	40%		<b>100%</b>			<b>75%</b>	25%	
47	<b>80%</b>	20%		<b>100%</b>			<b>88%</b>	13%	
48	<b>80%</b>	20%		<b>100%</b>			<b>88%</b>	13%	
49	<b>80%</b>	20%		<b>100%</b>			<b>88%</b>	13%	
50	<b>60%</b>	20%	20%	<b>100%</b>			<b>75%</b>	13%	13%
51	<b>80%</b>	20%		<b>100%</b>			<b>88%</b>	13%	
52	<b>80%</b>	20%		<b>100%</b>			<b>88%</b>	13%	
53	<b>80%</b>	20%		<b>100%</b>			<b>88%</b>	13%	
54	<b>80%</b>	20%		<b>100%</b>			<b>88%</b>	13%	
55	<b>80%</b>	20%		<b>100%</b>			<b>88%</b>	13%	



**Appendix G**  
**Item Analysis of the Pilot Study**

Items in the pilot study	Items in the main study	Difficulty indices (IF)	Delta	Discrimination Indices (ID)	Biserial Correlation Coefficients
1	1	0.962	6.900	0.143	0.139
2	2	0.981	6.200	0.071	0.056
3	3	0.923	7.600	0.214	0.307
4	4	0.865	9.700	0.286	0.270
5	5	0.288	15.000	0.357	0.273
6	6	0.808	9.100	0.429	0.448
7		0.923	0.000	-0.143	-0.061
8	7	0.942	6.900	0.143	0.186
9	8	0.731	10.500	0.429	0.450
10		1.000	0.000	0.000	0.000
11	9	0.865	8.700	0.357	0.306
12		0.096	0.000	-0.071	-0.004
13	10	0.827	9.400	0.071	0.139
14	11	0.269	16.000	0.357	0.202
15	12	0.827	8.700	0.357	0.293
16		0.865	9.400	0.071	0.018
17		1.000	0.000	0.000	0.000
18	13	0.981	6.200	0.071	0.056
19	19	0.538	12.700	0.500	0.409
20	15	0.692	11.100	0.357	0.371
21	16	0.577	13.100	0.571	0.556
22	17	0.404	15.200	0.500	0.612
23	18	0.904	7.400	0.000	0.022
24	19	0.750	9.400	0.071	-0.010
25	20	0.750	8.700	0.357	0.240
26		0.231	0.000	-0.214	-0.067
27	21	0.481	13.100	0.143	0.380
28	22	0.327	14.600	0.143	0.146
29	23	0.577	12.000	0.071	0.145
30	24	0.596	13.100	0.429	0.460
31	25	0.750	10.400	0.071	0.213
32	26	0.750	11.100	0.214	0.204
33		0.904	8.200	0.286	0.264
34		0.981	6.200	0.071	0.127
35	27	0.750	9.700	0.286	0.324
36	28	0.865	8.800	0.143	0.134
37	29	0.731	10.800	0.143	0.252
38	30	0.500	11.900	0.357	0.421
39	31	0.192	0.000	0.357	0.464
40	32	0.462	13.100	0.143	0.135

**Appendix G (continued)**  
**Item Analysis of the Pilot Study**

Items in the pilot study	Items in the main study	Difficulty indices (IF)	Delta	Discrimination Indices (ID)	Biserial Correlation Coefficients
41	33	0.462	12.700	0.357	0.435
42	34	0.673	11.300	0.571	0.424
43		0.885	7.400	0.000	0.060
44	35	0.923	8.200	0.286	0.317
45	36	0.885	8.200	0.286	0.379
46	37	0.788	0.000	-0.071	0.002
47	38	0.750	11.100	0.357	0.420
48	39	0.673	11.300	0.571	0.634
49	40	0.692	10.300	0.214	0.221
50	41	0.750	10.000	0.571	0.649
51	42	0.231	16.000	0.357	0.482
52	43	0.750	8.200	0.286	0.370
53	44	0.750	10.500	0.643	0.727
54		0.923	6.900	0.143	0.198
55	45	0.288	14.600	0.143	0.261
Mean		0.696	9.047	0.233	0.262

Note: The following is the suggested level of each index by the program (Classical Test Theory) initially developed by Chung Teh Fan.

- Item Difficulty Index (IF ) should be between .20-.80.
- Delta should be close to 13.0.
- Item Discrimination index (ID) and Biserial Correlation Coefficient should be higher than 2.0.

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## Appendix H

# *Reading Test of English for Consumer Product Marketing*

**(Final version for main study)**

**The test consists of 2 parts (14 pages)**

**Part 1 (a): 8 questions**

**(b): 7 questions**

**Part 2: 30 questions**

**Total 45 questions (45 points)**

**Time : 1 hour**

**Instruction : Blacken your answers in the answer sheet provided.**

**Part 1** Questions 1-15 ( 15 points)

(a) **Instructions: Blacken the correct answer (1, 2, 3 or 4 ) in the answer sheet provided.**

1. The proportion of the total market which one company controls is generally called market \_\_\_\_\_ .
  1. cap
  2. share\*
  3. trend
  4. value
2. The set of marketing tools consisting of the four Ps : product, price, place and promotion is known as the marketing \_\_\_\_\_ .
  1. cluster
  2. core
  3. mix\*
  4. model
3. A \_\_\_\_\_ refers to a specific promotion activity over a limited period of time.
  1. campaign\*
  2. publicity
  3. strategy
  4. theme
4. All advertisings aim to build brand \_\_\_\_\_ which is generally consumers' knowledge of the existence of a brand.
  1. awareness\*
  2. concept
  3. equity
  4. loyalty
5. A/An \_\_\_\_\_ is a paid communication in the media particularly in TV and radio designed to inform and persuade people about products and services.
  1. advertorial
  2. commercial\*
  3. editorial
  4. serial
6. Our new product line takes sales away from the existing ones because they are not sufficiently differentiated. Now we are facing the problem of \_\_\_\_\_.
  1. cannibalization\*
  2. competition
  3. deterioration
  4. misallocation
7. Marketers now put a lot of emphasis on \_\_\_\_\_ which deals with classifying customers into distinct groups of different requirements or buying habits.
  1. diversification
  2. discrimination
  3. integration
  4. segmentation\*
8. The new-comer employs \_\_\_\_\_ strategy by offering its products at lower prices and advertising heavily.
  1. demarketing
  2. merchandising
  3. penetration\*
  4. substitution

**(b) Instructions: Choose the best answer which is closest in meaning to the word underlined. Blacken your answer (1, 2, 3 or 4) in the answer sheet.**

### *Brand name does count*

Selecting a good brand name is **(9)** definitely a big deal. Some brand names are so great that they contribute to the success of products. Some could be so poor that they brought about product failures. Here presents the desirable attributes of a brand and its particular arguments.

Some says a good brand must be **(10)** distinctive. Good brand names are basically easy to pronounce, spell and remember. Such brands are Lux, Fab, Breeze and Fuji. However, some brand names might not meet this **(11)** criterion but still be quite successful such as Au bon Pain (bakeries), Shokubutsu Monogatari (personal care), etc.

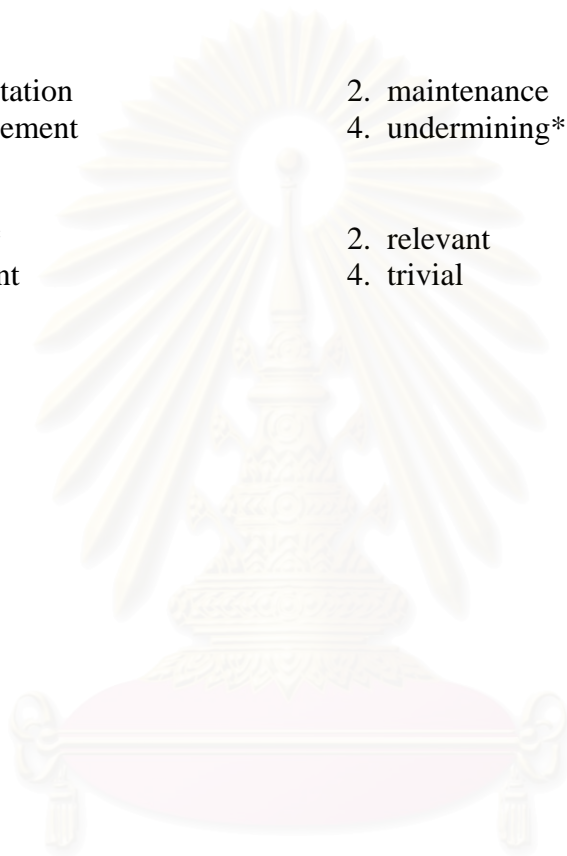
Of course a good brand should not carry a negative meaning especially when a brand is **(12)** launched into other countries with different languages. For example, Nova, a car's brand, is not a good name in Spanish-speaking countries as it means "doesn't go". 7up sounded cool in many languages, but in Shanghai, China, it means 'death through drinking' in local dialect. Unsurprisingly the sale suffered!

Some companies believe in multibranding. P&G's PertPlus shampoo is sold as Rejoice in Hong Kong, Vidal Sassoon in the U.K. and PertPlus in the Middle East. They employ multiple brand names for the same product when competing **(13)** globally. Others believe in brand extension. For instance, Virgin, known originally for its music stores and now primarily for its airlines, steps into planes, financial services, cinemas and more. All are under the same brand name 'Virgin' without concern for brand **(14)** dilution.

A brand is undeniably a **(15)** significant company asset. It is and will continue to be a major issue in product strategy.

- |     |                              |                                       |
|-----|------------------------------|---------------------------------------|
| 9.  | 1. certainly*<br>3. probably | 2. extraordinarily<br>4. questionably |
| 10. | 1. compatible<br>3. familiar | 2. concise<br>4. unique*              |
| 11. | 1. analysis<br>3. category   | 2. benchmark*<br>4. scenario          |

12. 1. exploited  
3. maintained
2. introduced\*  
4. transferred
13. 1. aggressively  
3. internationally\*
2. exclusively  
4. selectively
14. 1. augmentation  
3. reinforcement
2. maintenance  
4. undermining\*
15. 1. crucial\*  
3. sufficient
2. relevant  
4. trivial



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**Part 2** Questions 16-45 ( 30 points)

**Instructions: Choose the correct answer. Blacken answer (1, 2, 3 or 4 ) in the answer sheet.**

Passage 1 (Questions 16-18)

On a hand cream packaging, the following message is printed.

**The Excella Hand Cream** with antimicrobial protection is a superbly blended cream that applies smoothly and dries without odor. It inhibits the growth of a broad spectrum of bacteria and fungi including those causing food poisoning and infections. Every application remains effective for over 5 hours, enabling long-lasting protection against cross-contamination. The product is homogenized to enhance product performance, stability and a long shelf life of minimum 3 years. It is completely safe and non-irritating.

**Directions for use :** Wash and dry hands thoroughly. Apply a small amount on your palms, allowing 2-3 minutes to dry. Use 3 times a day or every 5 hours to keep your hands clean.

16. What is this product for?
1. Washing hands for good hygiene
  2. Smoothing and whitening hand skin
  3. Preventing contamination through hands\*
  4. Making hands soft, moist and releasing stress
17. What can consumers also expect from the product?
1. It provides a nice scent on hands.
  2. They will be safe and free from food poisoning.
  3. Their hands will be softer and smoother after repeated use.
  4. The product will remain in effect for many hours after each use.\*
18. How long will it take before the product expires?
1. 2-3 minutes
  2. more than 5 hours
  3. minimum 3 months
  4. at least 3 years\*

Passage 2 (Questions 19-21)

Your superior forwards to you this email from the head office. It says.

<p>From : Jim Edler &lt;Edler.J@united.com&gt;          To : Thawatchai &lt;Teerasut.T@united.com&gt;, David &lt;Baker.D@united.com&gt;, Teresa &lt;Matti.T@united.com&gt;, Ruth &lt;Benton.R@united.com&gt;          Subject : Annual agency review</p> <p>Dear Marketing Department Heads in all regional offices,</p> <p>As you all know, our company has a policy of evaluating our assigned agencies on an annual basis. In the last meeting on formal agency review, the committee has concluded on the evaluation procedures. They are attached for your study and execution.</p> <p>There are altogether five areas of evaluation of which you can see more details in the attachment.</p> <ol style="list-style-type: none"> <li>1) Agency and Client Relationship</li> <li>2) Media Planning Performance</li> <li>3) Creative Work and Production Quality</li> <li>4) Sales Promotion Initiation and Involvement</li> <li>5) Agency Billings and Business Results</li> </ol> <p>Please note the following schedule:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 70%;">Enquiries on evaluation form</td> <td style="width: 30%; text-align: right;">by January 7</td> </tr> <tr> <td>Submission of completed form by regional offices</td> <td style="text-align: right;">January 15</td> </tr> <tr> <td>Worldwide summary by head office ready</td> <td style="text-align: right;">February 20</td> </tr> </table> <p>Best regards,          Jim Edler / Global Communications Dept.</p>	Enquiries on evaluation form	by January 7	Submission of completed form by regional offices	January 15	Worldwide summary by head office ready	February 20
Enquiries on evaluation form	by January 7					
Submission of completed form by regional offices	January 15					
Worldwide summary by head office ready	February 20					

19. What does “Agency” in this email refer to?

1. Advertising Agency\*
2. Distribution Agency
3. Government Agency
4. Travel Service Agency

20. What does the Agency do?

1. Plan the business trip arrangements.
2. Implement the regulations related to the company.
3. Distribute the company’s products through intermediaries.
4. Provide communication and promotion services to customers.\*

21. According to the email, which statement is **NOT** true ?

1. The email sender works for the agency.\*
2. The agency review is done once a year.
3. There is a file attached with this email.
4. Agency expenditure is to be analyzed with sales performance.



Passage 3 (Questions 22-26)

Here is the news in the business section you read today.

## Changing Battlefield

The competition in the discount store business will be even tougher in the coming year. The number of discount stores is expected to rise 25 % outside of Greater Bangkok. Recent research showed that 80% of consumers in Bangkok shop at a hypermarket once a month, compared with only 35% of consumers in the provinces. Therefore, a great growth potential exists there. Among all superstores, BIG T has 36% of the market with 52 stores, Thai Max has 20% with 29 stores, C-Save has 28% with 41 stores and V-Care 16 % with 23 stores.

The secret success factor of BIG T lies in its excellent CRM system. It was found that the top 5% of customers represented 25% of sale while the bottom 30% accounted for only 2% of the total sales. Instead of treating customers equally, they started to embark on a program based on the frequency of purchase and the amount spent. The program offered points on purchases and a small rebate to loyal shoppers. While these all were not new, it allowed BIG T to grasp invaluable information used to build a very powerful database of customers. Such information allows BIG T to learn about what products they are and are not buying, what their favourite departments are, as measured by spending. Customers start to receive vouchers for items they like to buy and special offers in the departments they have never visited. Top customers got calls from the store manager as well as other privileges. As a result, BIG T enjoys greater market share, gains more satisfied customers and enormously adds up its profit. This is a prime example of the benefit of knowing your customers and converting such knowledge into a course of productive action.

22. What is the outlook of the discount store market in the coming year?
1. Slower market movement
  2. More competitors entering the market
  3. Fiercer rivalry due to existing stores' expanding coverage\*
  4. More market demand and opportunities in Greater Bangkok
23. What is the direction for business expansion of discount stores next year?
1. Acquire other super stores.
  2. Penetrate into upcountry areas.\*
  3. Increase outlets in Greater Bangkok.
  4. Add more selling space in the existing outlets.

24. What does BIG T do to enhance their customer loyalty program?
1. Give discount coupons for goods that customers prefer.\*
  2. Provide large volume discount to loyal customers.
  3. Offer free gifts on purchase for all customers.
  4. Invest aggressively in advertising campaigns.
25. What is the criterion used in BIG T's customer classification?
1. The frequency of visits by customers
  2. The number of units bought from the store
  3. The level of customer satisfaction from the survey
  4. The value of a customer's spending in the store\*
26. Why is the CRM system useful?
1. It reveals data on company performance and profit.
  2. It helps the company gain insight on the customers' spending.\*
  3. It consolidates information on market share for the company.
  4. It provides the inventory of the products customers like to buy.

Passage 4 (Questions 27-32)

This is a part of the marketing plan of the newly launched 'Riche' tomato ketchup.

***Marketing plan  
'Riche' Tomato Ketchup***

**Background**

The Ketchup market in 2004 is estimated at 180 million baht or 3,500 tons. The growth rate is forecasted at 5 % per annum. The core market is in the middle class up segment in national urban areas.

**Marketing objectives**

1. To establish a foothold in the tomato ketchup market with the theme – “Tasty & Healthy with Riche”.
2. To achieve a sales volume of 36 million baht or 20% market share in 2005.

**Marketing strategies**

Product :

Product positioning : Riche is a premium quality product with authentic taste of tomato ketchup.

Unique selling point : Riche offers just right thickness of texture and exquisite richness of authentic tomato ketchup.

Supporting evidence : Riche is made of fresh ripe juicy tomatoes, no artificial flavour, colour or preservative added.

Target consumers : Housewives aged 20-40 years old, C+ SES up, living in the urban areas.

Price :

There are three groups of product in this market : standard, premium and imported. Premium brands are priced 40% higher than standard ones. In turn, imported brands' prices double those of the premium brands. Riche will be priced approximately 10% lower than other premium brands in order to gain trial in the introductory period.

Distribution :

The objective is to achieve at least 70% of total national condiment market outlets through a highly competitive trade promotion campaign and rebate program. A 10%-to-sale budget is allocated for this purpose as well as the entrance fee in major modern trade outlets.

Promotion:

The objective is to stimulate trial and repeat purchase through in-store promotions with a collection of give-away premiums.

27. What is the expectation in the first year for Riche?
1. To be a market leader
  2. To be known as a high quality imported brand
  3. To introduce products covering all price ranges
  4. To succeed in grasping one-fifth of the total market\*
28. Who are the target consumers of Riche?
1. Working mothers living in the cities\*
  2. Teenagers studying university levels
  3. Schoolchildren in the upcountry provinces
  4. Retired employees who are health-conscious
29. What helps justify the product's unique selling point?
1. It is an imported quality brand.
  2. It is free from non-natural ingredients.\*
  3. It is made of ripe juicy grapefruit.
  4. It offers various kinds of vitamins.
30. How is Riche priced compared to the standard brands?
1. 10% lower
  2. 20% lower
  3. 30% higher\*
  4. 40% higher
31. What is the 10%-to-sale budget allocated for?
1. Trade incentive scheme\*
  2. Free sampling in the introductory phase
  3. Consumer promotion in the modern trade outlets
  4. Advertising with the theme – Tasty & Healthy with Riche
32. What is the main objective of the consumer promotion ?
1. To reduce cost and overhead
  2. To widen distribution coverage
  3. To lessen trial and repeat purchase
  4. To speed up buying decision and sales volume\*

Passage 5 (Questions 33-36)

Your Client Service Executive sent you the following research finding regarding the advertising awareness for the second quarter (Q 2) compared to the previous quarter (Q 1) and the corresponding media spending.

**Quarterly Advertising Awareness Survey  
Top Five in Bangkok**

Brand	Position		Total spontaneous awareness (%)		Top-of-mind awareness (%)		Media spending (mil. baht)	
	Q 2	Q 1	Q 2	Q 1	Q 2	Q 1	Q 2	Q 1
<b>Silky</b> (hair care)	1	3	12.0	8.6	6.8	5.0	143.5	136.8
<b>Zaza</b> (beverage)	2	9	9.6	4.3	4.6	1.3	164.8	52.0
<b>United</b> (mobile phone)	3	5	8.5	6.7	4.4	3.9	139.3	96.7
<b>Zedric</b> (car)	4	1	6.7	11.9	4.0	7.1	89.5	124.5
<b>Maxima</b> (energy drink)	5	2	6.4	9.8	3.3	6.2	112.1	140.6

Source : 500 respondents in Bangkok, all adults aged 18-50.

Remark:

1. Respondents were asked : “During the past 3 months, which brands have you seen or heard advertised ?”.
2. Total spontaneous awareness comes from frequency count in percentage of the advertising of the brands mentioned by respondents. Top-of-mind awareness is that of the first brand mentioned by the respondents.
3. Media expenditure concerns with following media only : TV, radio, newspapers, magazines, cinema and out-door.

In this quarter, Silky had the highest advertising awareness due to its new campaign “Hair Spa @ Home” which was launched last month. Both the total spontaneous and top-of-mind awareness were the highest. However, the first runner-up in advertising brand awareness, Zaza, was the top media spender this quarter. Zaza, ranked no. 9 in the last quarter, jumped up to be no. 2 in this quarter with huge media spending. This quarter was generally the peak season for beverage products. United increased its media expenditure this quarter and achieved in leveling up its advertising awareness to no. 3. Zedric markedly went down from the top place to no. 4. It might be partly explained by the big cut in media budget this quarter. The fifth rank belonged to Maxima, who reduced the media budget drastically as the brand prepared to introduce its new logo and slogan next month according to the press release done at the end of last month.

33. What is the purpose of an advertising awareness survey ?
1. To understand a brand's pricing strategy.
  2. To obtain information on consumers' advertising recall.\*
  3. To gain data on the effectiveness of a promotion campaign.
  4. To collect information on customers' purchasing habits.
34. According to the passage, what could be the cause of Zaza's increase in media spending in the second quarter?
1. The media cost went down strikingly.
  2. The competitors increased media expenditure.
  3. It was the selling period of this product category.\*
  4. It aimed to support the campaign "Hair Spa @ Home".
35. According to the survey report, which statement is **NOT** true?
1. Silky ranked no. 1 in terms of total advertising awareness in Q2.
  2. Zaza spent more in media and succeeded in gaining higher awareness in Q2.
  3. United's media spending increased the highest from Q1 to Q2 compared to the other brands.\*
  4. Maxima reduced its media spending in Q2 as its logo was going to be replaced.
36. If you are in charge of "Zedric" brand, what did the survey finding tell you?
1. Zedric's advertising awareness ranked no. 4 compared to other cars'.
  2. The cut in the media budget did not affect the advertising awareness.
  3. The second quarter presented the best selling opportunity for Zedric.
  4. Zedric's advertising awareness in Q2 went down compared to Q1.\*

Passage 6 (Questions 37-45)

Sale of your body lotion brand went down this month. Here comes the monthly sales report from your distributing company.

**Monthly Sales Report  
For July 2004**

Sales this month were 15.6 % lower than the budget and 10.6% lower than the same period last year. The main factors contributing to the sales drop were shortage in the 250-ml. size which is the best-selling item, the new promotion campaign introduced by the key competitor and the severe drought in the northeastern region.

***Shortage of the 250-ml. size***

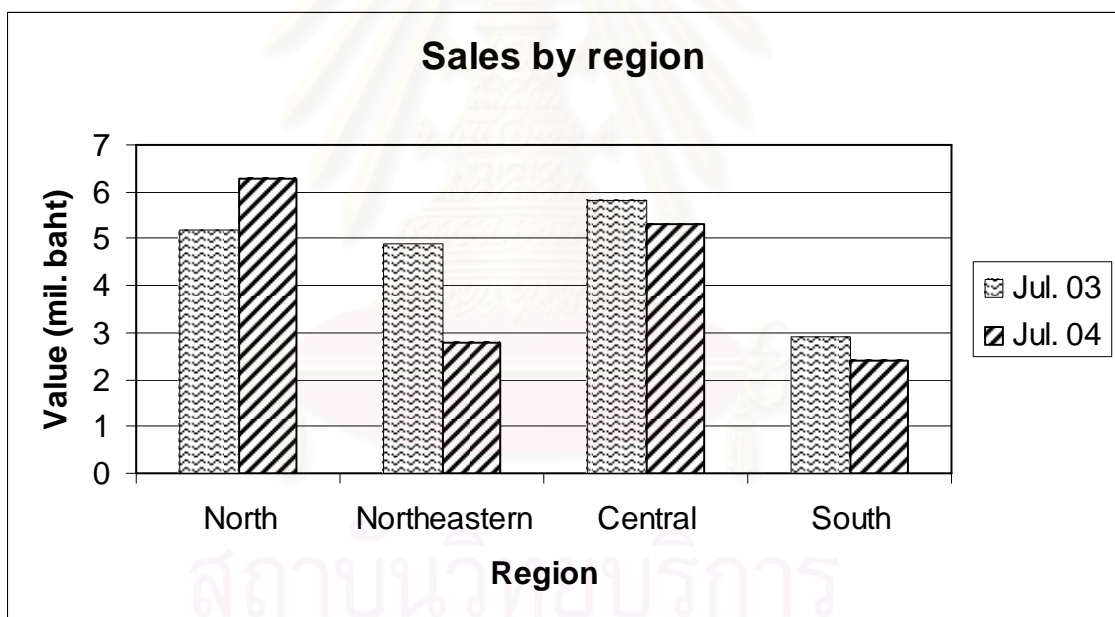
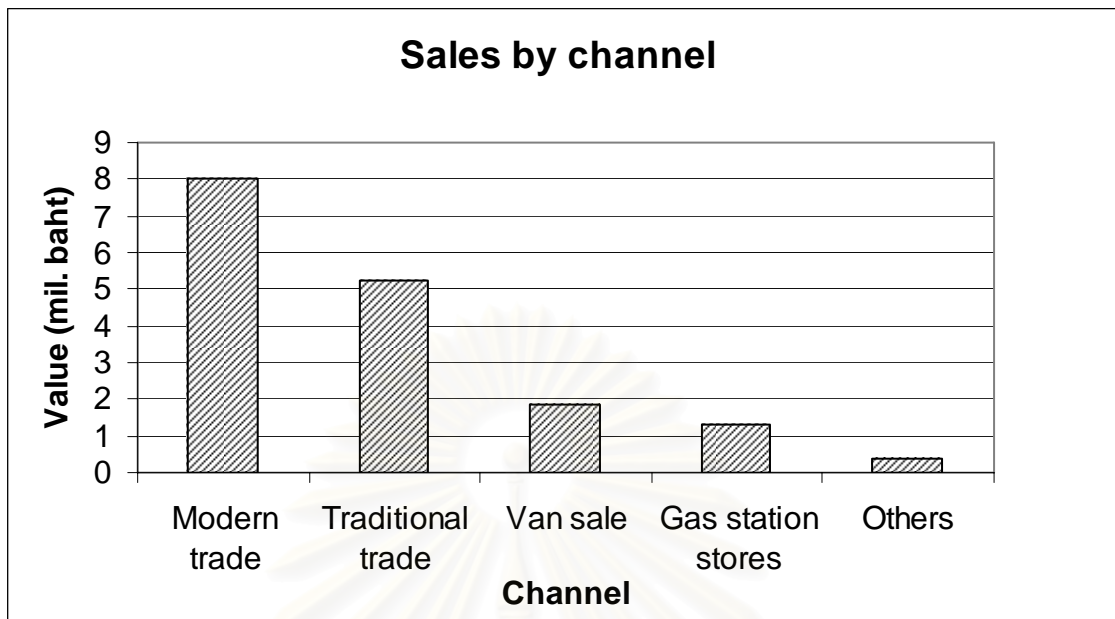
This is the primary factor adversely affecting sales. In the first 10 days, all orders were backlogged. Those orders amounted to 4.8 million baht. However, all the orders, by now, had already been processed and goods were delivered. This, of course, reflects the loss of selling opportunity that could not be replenished during the month.

***New campaign by the competitor***

Coupling with our supply shortage, our major competitor, Sensual, has launched a trade promotion campaign that is quite appealing to the customers. The campaign offers 2% kickback for every 100-case purchase. This campaign well attracts the trade customers who started to switch to buy more of Sensual. Since the campaign will last for 3 months, we could expect its impact on our sales in the coming months. A corrective and competitive measure is urgently needed.

***Drought in the northeastern region***

The drought covered a number of our key markets, particularly in Khon Kaen, Nakornratchasima and Udonthani. The persisting drought since last month started to affect people's purchasing power. Generally this region represents approximately 26% of total sales each month. Sales in this region for this month were 2.8 million baht which constituted 16 % of total sales.



37. What is the situation facing the marketing department?

1. Sales dropped in all regions across the board.
2. Sales diminished owing to the flaws in the products.
3. Sales were less than the expected and past performance.\*
4. Sales declined due to the seasonality of the product category.

38. What is the major cause of the sales decrease?

1. Insufficient inventory of the core item\*
2. More attractive offer by other company
3. Natural irregularity in the provinces
4. Unsuccessful campaign of the company



39. Why were the first 10-day orders backlogged?
1. Manufacturing facility closed down.
  2. Delivery unit was not ready by then.
  3. Quality problem of the product existed.
  4. There was not adequate quantity of products in the warehouse.\*
40. Why do the trade customers start to buy more of Sensual?
1. It has more selling opportunity.
  2. The product has superior quality and advertising.
  3. A higher benefit is offered with large-volume purchase.\*
  4. The product offers more product benefit and promotion to consumers.
41. What is the effect of drought in the northeastern region?
1. Shortage in supply of the 250-ml size
  2. Poorer sales result in the region\*
  3. Increase in consumers' demand for the product
  4. More competitors entering the market
42. What did the distributor request the marketing department?
1. Initiate the counteracting promotion with Sensual.\*
  2. Speed up the production of the 250-ml. size.
  3. Revise the sales budget for northeastern region.
  4. Launch a consumer promotion campaign to boost up buying power.
43. What could be concluded from the sales by channel illustration ?
1. Traditional trade sales were at par with the van sales.
  2. Sale in gas station store exceeded that of van sales.
  3. The product is the best-selling brand in modern trade channel.
  4. Modern trade commanded the highest contribution to total sales.\*
44. What is the misinterpretation of the sales by region illustration ?
1. Northeastern region faced the most severe sales drop.
  2. Sale in central region constituted highest percentage of total sales this month.\*
  3. All regions except north had poorer performance compared to last year.
  4. Southern region sold the least this month compared to other regions.
45. What could the marketing department do to prevent the problem in the future?
1. Provide measures to prevent drought.
  2. Prevent the competitors' new campaign launch.
  3. Offer a highly competitive trade promotion scheme.\*
  4. Guarantee 100% payback for unsatisfied customers.

**This is the end of the test**

## Appendix I

### Questionnaire for test takers (Thai version)

แบบสอบถามความคิดเห็นเกี่ยวกับ

#### Reading Test of English for Consumer Product Marketing (RT-ECPM)

ชื่อ (นาย/ นางสาว) .....เลขประจำตัว.....

คณะ..... สาขา .....ปีที่.....

เวลาในการสอบ เริ่ม ..... เสร็จ .....

ส่วนที่ 1 : ข้อมูลด้านการศึกษาของท่าน กรุณาใส่เครื่องหมาย  $\surd$  ใน  หน้าคำตอบที่ท่านเลือก และกรอกข้อมูลในช่องว่าง

1. เกรดเฉลี่ยทุกวิชาถึงภาคเรียนปัจจุบัน (GPAX) .....

2. เกรดของวิชา หลักการตลาด (Principles of Marketing)

A  B+  B  C+  C  D+  D  F

3. เกรดของวิชา การสนทนาภาษาอังกฤษธุรกิจขั้นสูง (Advanced Business Oral Communication)

A  B+  B  C+  C  D+  D  F

4. เกรดของวิชา การสนทนาภาษาอังกฤษธุรกิจ (Business English Oral Communication)

A  B+  B  C+  C  D+  D  F

5. เกรดของวิชา การเขียนจดหมายภาษาอังกฤษธุรกิจ (Business English Correspondence)

A  B+  B  C+  C  D+  D  F

ส่วนที่ 2 : ความคิดเห็นของผู้ตอบแบบสอบถามที่มีต่อข้อสอบ RT-ECPM

กรุณาใส่เครื่องหมาย  $\surd$  ในช่องที่ท่านเลือกตอบตามเกณฑ์ระดับความคิดเห็นต่อไปนี้

4 = มากที่สุด, 3 = มาก, 2 = น้อย, 1 = น้อยที่สุด

ลำดับ	คำถาม	ระดับความคิดเห็น			
		4	3	2	1
1	ท่านพอใจกับรูปแบบโดยรวมของข้อสอบ RT-ECPM				
2	ลักษณะและขนาดของตัวอักษรที่ใช้ในข้อสอบเหมาะสม				
3	กราฟและตารางที่ใช้ในข้อสอบชัดเจน				
4	กราฟและตารางที่ใช้ในข้อสอบเหมาะสมกับข้อสอบ				
5	จำนวนข้อในข้อสอบมีความเหมาะสม				
6	ระยะเวลาที่ใช้ในการสอบมีความเหมาะสม				
7	ระดับความยากง่ายของข้อสอบ RT-ECPM มีความเหมาะสม				
8	การสอบ RT-ECPM มีประโยชน์ต่อการเรียนและการพัฒนาภาษาอังกฤษของท่าน				
9	การสอบ RT-ECPM มีประโยชน์ต่อการทำงานในอนาคตของท่าน				
10	ท่านคิดว่า เนื้อหาของข้อสอบมีความคล้ายคลึงกับการอ่านภาษาอังกฤษในสถานการณ์จริงในธุรกิจการตลาดสินค้าอุปโภคบริโภค				
11	รูปแบบของข้อสอบมีความคล้ายคลึงกับการอ่านภาษาอังกฤษในสถานการณ์จริงในธุรกิจสินค้าอุปโภคบริโภค				

12. โปรดแสดงความคิดเห็นเกี่ยวกับข้อดี และ ข้อควรปรับปรุงของข้อสอบ RT-ECPM

ข้อดี .....

.....

ข้อควรปรับปรุง.....

.....

## Appendix J

### Questionnaire for test takers

#### *Reading Test of English for Consumer Product Marketing (RT-ECPM)*

Name (Mr./ Ms.)..... ID.No. ....

Faculty.....Major .....Year.....

Part 1: Please fill in your academic data and put  $\checkmark$  in the

1. Cumulative Grade Point Average (GPAX) .....

2. Grades achieved in the Principles of Marketing course:

A    B+    B    C+    C    D+    D    F

3. Grades achieved in the Advanced Business Oral Communication course:

A    B+    B    C+    C    D+    D    F

4. Grades achieved in the Business English Oral Communication course:

A    B+    B    C+    C    D+    D    F

5. Grades achieved in the Business English Correspondence course:

A    B+    B    C+    C    D+    D    F

Part II : Please put  $\checkmark$  in the space that corresponds to your opinion by using the following scale:

**4** = Strongly agree ,   **3** = Agree ,   **2** = Disagree ,   **1** = Strongly disagree

Item	Statement	Scale			
		4	3	2	1
1	I am satisfied with the test in general.				
2	Typeface and size of characters in the test are appropriate.				
3	Graphs and tables in the test are clear.				
4	Graphs and tables in the test are appropriate.				
5	The number of questions in the test is appropriate.				
6	Time allotment for the test is appropriate.				
7	Level of difficulty of the test is appropriate.				
8	The test is useful for my English language learning and development.				
9	The test is useful for my future career.				
10	The content of the test is similar to the content of reading of English for Consumer Product Marketing in real situations.				
11	The format of the test is similar to the format of reading of English for Consumer Product Marketing in real situations.				

12. Please comment on the strong points and areas for improvement of the RT-ECPM.

Strong points.....

.....

Areas for improvement .....

.....

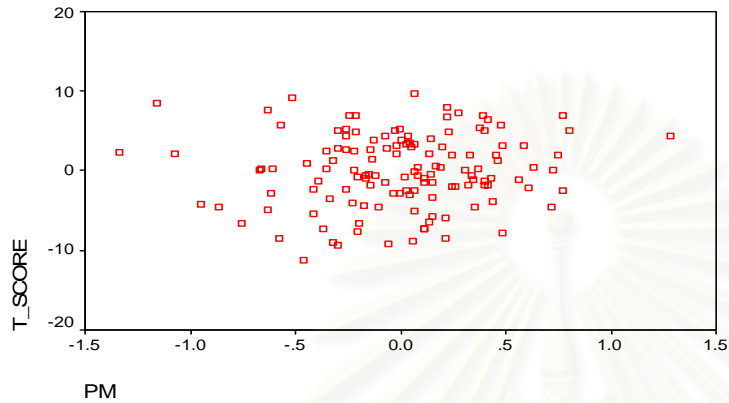
## Appendix K

### Checking the Assumptions of the Multiple Regression Analysis

#### Appendix K-1: Linearity of relationship

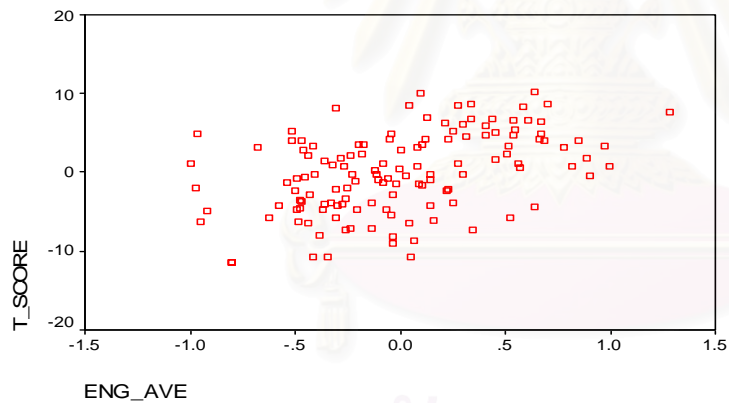
Partial Regression Plot

Dependent Variable: T\_SCORE



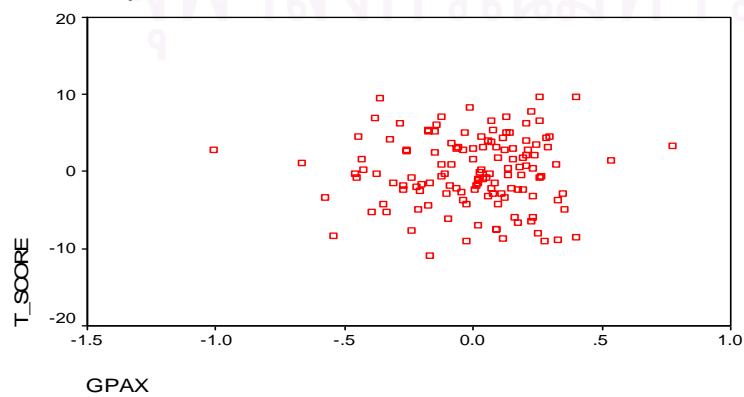
Partial Regression Plot

Dependent Variable: T\_SCORE



Partial Regression Plot

Dependent Variable: T\_SCORE

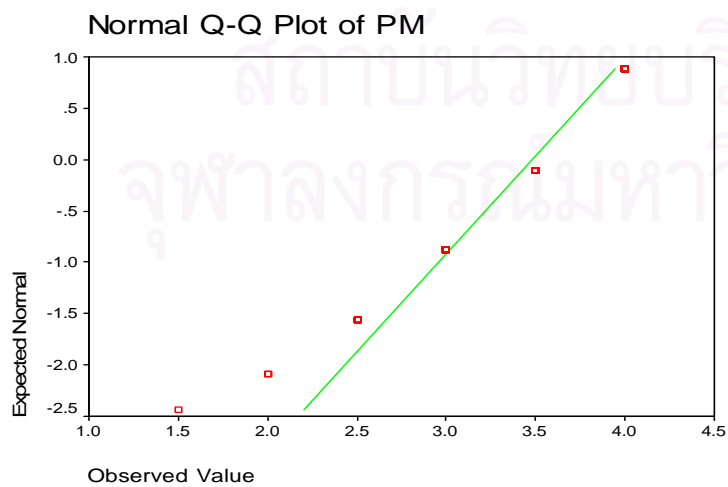
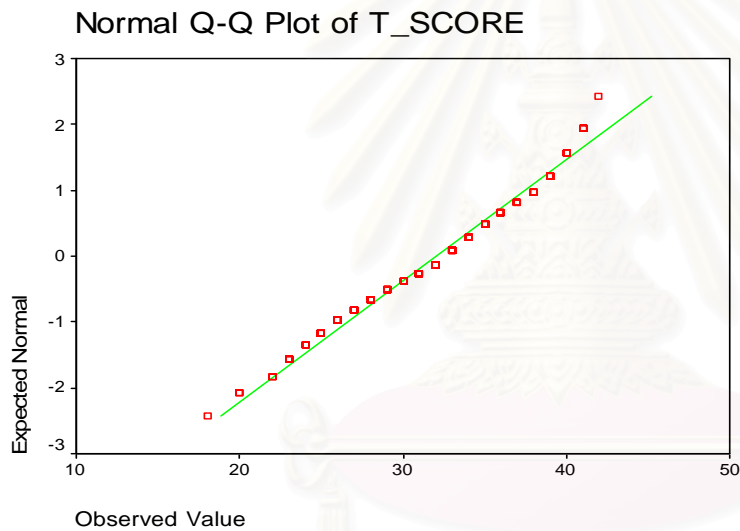


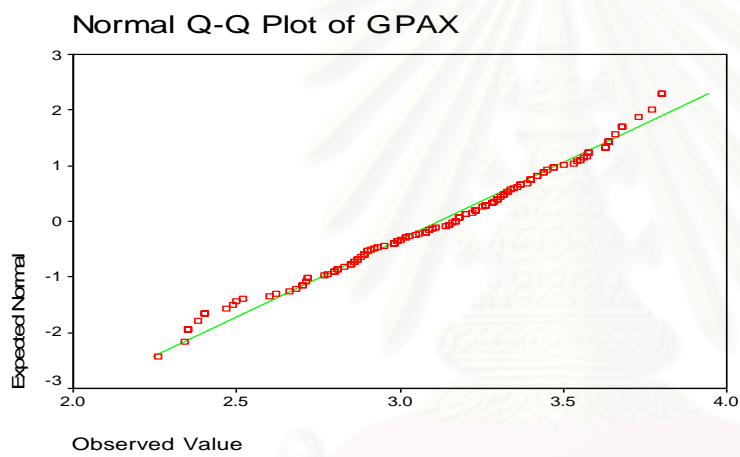
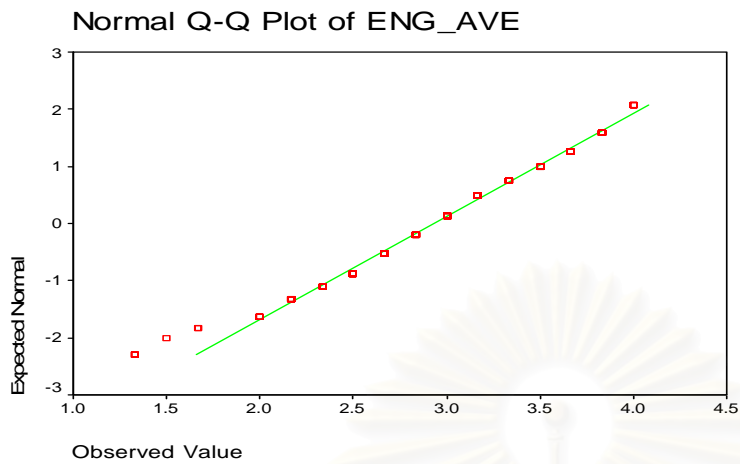
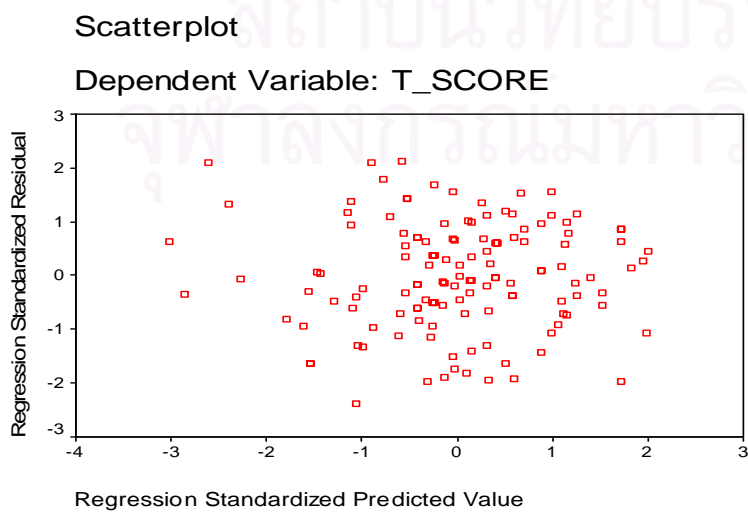
### Appendix K-2: Collinearity statistics

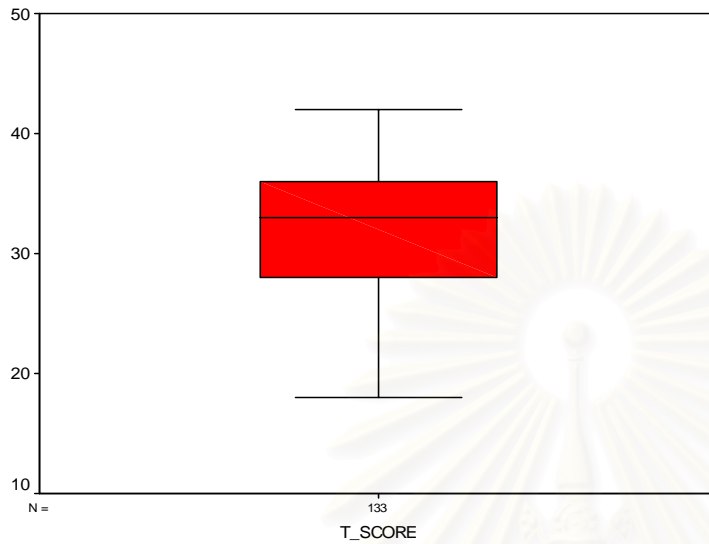
Variables	Collinearity Statistics	
	Tolerance	VIF
PM	.647	1.545
ENG_AVE	.714	1.400
GPAX	.506	1.977

Note: Tolerance values below .2 or VIF above 4.00 indicate a multicollinearity problem (Garson, 2004).

### Appendix K-3: Same underlying distribution for all variables



**Appendix K-3: Same underlying distribution for all variables (continued)****Appendix K-4: Homoscedasticity**

**Appendix K-5: No outlier**

สถาบันวิทยบริการ  
จุฬาลงกรณ์มหาวิทยาลัย

## BIOGRAPHY

Nisa Vongpadungkiat obtained her bachelor's degree in Business Administration from the Faculty of Business Administration, Assumption University in 1988. She received Master in Business Administration from Thammasat University in 1992 and Master of Arts in English as an International Language from Chulalongkorn University in 2003. Her background was in business particularly in marketing area for more than 10 years. She currently operates an academic learning center. The research areas of her interest include language assessment and English for Specific Purposes.



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