# Assessing Chinese Business Students' Orientation Towards

**Corporate Social Responsibility:** 

An Intervention Study

by

WONG, Po May Daphne

A Thesis Submitted to The Hong Kong Education of University in Partial Fulfillment of the Requirement for the Degree of Doctor of Education

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# **Statement of Originality**

I, WONG, Po May Daphne, hereby declare that I am the sole author of the thesis and the material presented in this thesis is my original work except those indicated in the acknowledgement. I further declare that I have followed the Institute's policies and regulations on Academic Honesty, Copyright and Plagiarism in writing the thesis and no material in this thesis has been submitted for a degree in this or other universities.

WONG, Po May Daphne June 2016



# **Thesis Examination Panel Approval**

Members of the Thesis Examination Panel approved the thesis of WONG, Po May Daphne defended on 2016.

Principal Supervisor Prof. KENNEDY, Kerry John Chair Professor Centre for Governance and Citizenship The Education University of Hong Kong

# **External Examiner**

Dr. HOOI, Carol Associate Professor of Human Resource Management and Organisational Behaviour, Faculty of Social Sciences Nottingham University Business School Malaysia

The Education University of Hong Kong

Associate Supervisor	Internal Examiner
Dr. YAN, Zi	Professor YU Wai Mui Christina
Assistant Professor	Associate Professor / Department of
Department of Curriculum and Instruction	Social Sciences
The Education University of Hong Kong	Director / School Partnership and Field
	Experience Office

Approved on behalf on the Thesis Examination Panel:

Chair, Thesis Examination Panel Prof. KENNEDY, Kerry John Chair Professor Centre for Governance and Citizenship The Education University of Hong Kong



#### Abstract

Globalization has eliminated geographical boundaries in many ways for businesses, making our world more vulnerable to the impacts of irresponsible business decisions. As such business schools have to find effective ways in nurturing business students with stronger ethicality. Hong Kong has very close link with and plays a certain role in the business sector of Mainland China. Its business graduates are eligible to work in the Mainland and may subsequently take up managerial positions. The CSR orientation (CSRO) of the Hong Kong business students can in fact become part of the future CSRO of businesses in China. This study aims to understand the effectiveness of a CSR themed intervention in influencing Hong Kong Chinese business students' CSRO. This is an experimental type of study with an experimental (X) and a control (C) group. Participants are students of an Associate in Business (Business Management) programme. The intervention incorporated a mix of activities of reading, seminars, site visits and servicing experience at an NGO. A.B. Carroll's (1979, 1991a) Pyramid of CSR framework defined CSR with the variables of Economic, Legal, Ethical and Discretionary. This became the conceptual premises for Aupperle (1982) to originate an ipsative measurement instrument (E-CSRO) that can assess orientations towards corporate social responsibilities (CSRO) of individuals. This study translated E-CSRO into Chinese (C-CSRO) with its structural validity confirmed by an Exploratory Factor Analysis (EFA) and its relevance to a Chinese community established by Confirmatory Factor Analysis. The C-CSRO was used to collect data at pre-post intervention from the X and C groups. Using repeated measures multivariate analysis of variance MANOVA, significant differences were found in post intervention scores between the X and C groups in Legal F (1,158) = 10.303, p = .002,  $\eta_{p}^{2} = .061$ ; and Discretionary F (1,158) = 25.166, p<.001,  $\eta_{p}^{2} = .137$  which has a marked



increase of  $\pm$ .512 in post intervention mean score of X over the C group. Pairwise comparison in pre-post intervention of X showed no significant difference in Economic; but there were significant differences with the non-economic variables but in different directions. Legal mean score decreased by .361 *p*<.001; Ethical decreased by .201, *p*=.028; but Discretionary increased by .492, *p*<.001. The servicing activity at an NGO appeared to be a direct factor leading to a surge in importance of Discretionary but at the expense of the other two non-economic CSRO of Legal and Ethical. There were no pre-posttest significant differences in all four CSR variables of the C Group. Five personal variables of Year of study, Age, Gender, Religion and Prior CSR experience were controlled and their impacts in influencing CSRO of the participants were ignorable. Overall, the study has supported usefulness of the intervention in changing CSRO of a group of Hong Kong Chinese business students. The results have implications on the pedagogic and learning method, curriculum, operation and research of CSR education, ecological implication to students of other communities such as Mainland China, and raise the need to update the CSR constructs of the Pyramid of CSR.

Keywords: corporate social responsibilities (CSR), business ethics, orientation towards CSR orientation (CSRO), teaching and learning, CSR education



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# List of Abbreviations

BE	Business ethics
С	Control group
CFI	Comparative Fit Index
CSP	Corporate social performance
CSR	Corporate social responsibilities
CSRO	Corporate social responsibilities orientation
C-CSRO	Chinese Orientation towards Corporate Social Responsibilities
E-CSRO	English Orientation towards Corporate Social Responsibilities
EFA	Exploratory Factor Analysis
EPPI	Evidence for Policy and Practice Information Centre
GFI	Goodness of Fit Index
GVV	Giving voice to values
HKBU	Hong Kong Baptist University
НКСС	Hong Kong Community College
HKSAR	Hong Kong Special Administrative Region
PCA	Principal Component Analysis
RCT	Randomized controlled trial
RM	Repeated measures
MANOVA	Multivariate analysis of variance
MAR	Missing at random
MCAR	Missing completely at random
MI	Modification index
ML	Maximum Likelihood



MSA	Modified serial approach
NFI	Normed fit index
NMAR	Missing not at random
PFA	Principal Factor Analysis
RMSEA	Root Mean Square Error of Approximation
SA	Serial approach
SE	Social enterprise
SR	Social responsibilities
SRI	Socially responsible investment
SRMR	Standardized Root Mean Square Residual
TLI	Tucker-Lewis Index
TPB	Theory of Planned Behaviour
TRA	Theory of Reasoned Action
Х	Experimental group



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# **Chapter 1**

# **INTRODUCTION**

Chapter 1 is divided into four sections. Section 1.1 is the background leading to this research topic; Section 1.1.1 is the social background and Section 1.1.2 is the overarching theoretical background; together they configure a broad structural framework of this research. Section 1.2 elucidates the overall significance of this study; Section 1.2.1 further explains the significance to study the Hong Kong Chinese students; Section 1.2.2 is about Hong Kong students' attitude in general towards business ethics/orientation towards corporate social responsibilities; Section 1.2.3 explains the ecological significance of the research. Section1.3 outlines the structure of the entire thesis and Section 1.4 wraps up this chapter with a summary.

As we progress into the 21st century, the irreversible tide of globalization continues to overwhelm us with both positive and negative impacts to our society. While people are more connected technologically than ever; the shrinking of geographical distances in the business world means business decisions can easily affect stakeholders near and afar, making us more susceptible to jeopardy caused by corporate malpractices. Such changes in business scenarios have simultaneously posed unparalleled challenges to businesses and business education providers. In fact a new world order has already emerged that has necessitated us to cultivate a new generation of entrepreneurs who are visionary enough to utilize business ventures in solving social problems (Dees, 2001; Pomerantz 2003; Seelos & Mair, 2005). These trends have significant implications for business education. Business schools are important



socializing agents in shaping students' value systems for they provide the curriculum, pedagogy and epistemology for business education. What they preach and teach has an important influence on students' perception of the business reality including how business ethics (BE) and corporate social responsibilities (CSR) are interpreted (Hühn, 2014; Lämsä, Vehkaperä, Puttonen, & Pesonen, 2008).

BE and CSR are closely related topics concerned with what good can businesses do to our society. Singer (1993) viewed CSR as a subset of BE but Matten and Moon (2004) regarded CSR as an umbrella term encompassing BE. Joyner and Payne (2002) argued that BE is a value-laden concept that involves pluralistic moral philosophies and judgments on the rights and wrongs of business decisions, whereas CSR is often found in the management literature implying it is more a matter of application. Schwartz and A.B. Carroll (2008) summed up that the two are overlapping areas. All in all, BE and CSR are similar enough to be treated as interchangeable concepts in the context of this study, though the focus of this research is on CSR rather than BE.

A.B. Carroll (1979) suggested that CSR is made up of four underlying dimensions: one is Economic and the other three are non-economic by nature including Legal, Ethical and Discretionary (or Philanthropy). A.B. Carroll (1991a) subsequently renamed his proposal as the Pyramid of CSR. Out of the numerous definitions of CSR, the Pyramid of CSR is regarded as enduring and canonical (Windsor, 2006) and a nascent concept (Tan & Komaran, 2006) that is comprehensive enough to depict CSR (Ramasamy & Yeung, 2009). Details of A.B. Carroll's work will be elaborated in Chapter 2. Based on the Pyramid of CSR, Aupperle (1982) initiated a measurement scale to assess individual's orientation towards CSR (CSRO); and the scale was further developed by Aupperle, Hatfield and A.B. Carroll (1983), and



Aupperle (1984). Since the measurement scale was written in English, for the ease of identification it will be called the E-CSRO (English - Orientations towards Corporate Social Responsibilities) within the context of this thesis; when citing reference source for E-CSRO and for simplicity's sake, it will just refer to Aupperle's (1982) writing, unless otherwise stated. According to the Oxford Dictionary (2015) "orientation" means a person's basic attitude, beliefs, or feelings in relation to a particular subject or issue, so the words "orientation" and "attitude" will be generally regarded as having the same meaning in this study.

The purpose of this research is about how to develop business students' CSRO. A.B. Carroll's Pyramid of CSR will be adopted as the definitional framework for CSR. The specific objective is to explore the effectiveness of an educational intervention in influencing CSRO of a group of Hong Kong Chinese business students. The measurement scale E-CSRO will be first translated into Chinese and then validated to become the C-CSRO (Chinese-Orientation towards Corporate Social Responsibilities). Two groups of students will be recruited for this study, forming the Experimental (X) and Control (C) group. They are from Year 1 and 2 of a two years' Associate Degree Program in Business Management from the Hong Kong Community College, an affiliate of the Hong Kong Polytechnic University. Given the limitation in time and other resources, the intervention is in the form of a one-day CSR-themed co-curricular activity that will be administered to the X group. Pre-post intervention CSRO scores will be collected from both the X and C groups using the measurement scale C-CSRO. Between and within subjects' differences will be analyzed so that and the effectiveness of the intervention in changing students' CSRO can be assessed.



# 1.1 Background

#### 1.1.1 Social background

Globalization has not only brought forth economic benefits for many people but at the same time aggravated social disequilibrium and problems on a global scale. Effects of multinational corporate failures can now easily ripple across the world, making our economic and social being more vulnerable and volatile than ever. Business corporations are major constituents of our society and corporate deeds are permeating into almost every aspect of our living. While we all hope businesses will develop stronger commitment to CSR, the series of white-collar crimes of global magnitude that we have witnessed especially in the last two decades suggest this may not be the case. Friedman's (1962, 1970) rather crude view of corporate responsibility as purely profiteering and economic driven, and that corporations were only answerable to shareholders as long as their actions stayed within the law, obviously is unconvincing.

Behind the corporate veils is the individual business person who masterminds corporate decisions. Unfortunately, research evidence seems pointing to the phenomenon that business students are in general prone to be more selfish, narcissistic, less empathetic and even more inclined to engage in academic dishonesty than their non-business counterparts (Baird, 1980; Brown, 1995; Frank, 2004; Khaneman, Knetsh & Thaler, 1986; Lampe & Engleman-Lampe, 2012; Sautter, Brown, Littvay, Sautter & Bearnes 2008; McCabe & Trevino, 1995). Levy and Rakovski (2006) even described business students as "among the most dishonest" (p. 736). Whether business students have the ethical capacity to safeguard our future world from corporate misconduct remain questionable (Muff et al., 2013). As today's business students will become business practitioners and decision-makers in the future, it is important to ensure



that students will not solely chase after economic success but also care for the social aspects of CSR. As such nurturing students with compatible mindset should be an important objective of business education.

The early years of the twenty-first century were fueled by the crisis of a number of gigantic corporate failures and scandals. At that time, the Association to Advance Collegiate Schools of Business (AACSB), a prominent accreditation and regulatory body for business schools, voiced out that business schools have to foster the element of business ethics in their programs (AACSB, 2004). In 2008 when the world was once again badly hit by another wave of financial crisis due to human misconduct, there was strong public demand that business schools have to take up more responsibility in educating students' ethicality. The Eligibility Procedures and Accreditation Standards for Business Accreditation, Learning and Teaching Standard 9 issued by the AACSB (2013), explicitly stated that business curriculum for bachelor's degree or higher should address the development of skills and business knowledge in "Ethical understanding and reasoning (able to identify ethical issues and address the issues in a socially responsible manner)", and "social responsibility, including sustainability, and ethical behavior and approaches to management" (pp. 31-32). Nonetheless individual business school and institution are still left with much latitude in deciding what kind of weight and space the topic of BE and CSR should occupy in their curriculum.

Business schools are accountable in taking the lead to inculcate students as ethical and socially responsible business professionals and this view is also shared by the academia (Cornelius, Wallace & Tassabehji, 2007; Godemann, Haertle, Herzig & Moon, 2014; Gonzalez-Rodriguez, Diaz-Fernandez, Pawlak & Simonetti, 2013; Swanson, 2004; Waples, Antes, Murphy, Connelly & Mumford, 2009). Despite such high expectations, business



education providers have been accused of compartmentalizing a complex world by oversimplistic models and interpretations (Lissack & Richardson, 2003), and business students have been largely exposed to scientific business models without moral considerations (Bennis & O'Toole, 2005; Neubaum, Pagell, Drexler Jr., McKee-Ryan & Larson, 2009). Ghoshal (2005, p.76) commented harshly that "... by propagating ideologically inspired amoral theories, business schools have actively freed their students from any sense of moral responsibility". Such comments point out that business education should abandon some of its traditionally hegemonic view about excelling in competition at all costs. After all, business expertise and excellence are not necessarily divorced from ethicality (Molyneaux, 2004) and the competition-centric mode of business education certainly has room to transmute into a more stakeholder or human-centred approach (Giacalone & Thompson, 2006; Sanzgiri, 2009).

Faced with such criticism, deans of business schools in the United States responded quite positively and have placed high regard on the teaching of BE and treated this as among the top five learning goals of their programmes (Martell & Calderon, 2005). A survey by Christensen, Peirce, Hartman, Hoffman and Carrier (2007) with some top business schools ranked by the *Financial Times* showed that the majority of them have, in one way or another, incorporated elements of BE in their curriculum. Another survey by Evans and Weiss (2008) found that over 80% of the deans of AACSB accredited business schools either agreed or strongly agreed that BE should be an important element of their education mission. A similar study by Orlitzky and Moon (2011) for business schools in Europe also supported the growing importance of the CSR component in their curricular agenda. Apart from being blessed by the senior management, interestingly business students themselves also agreed that business school education should teach them about business ethical issues (Mohammad,



2011). A survey conducted by Sleeper, Shneider, Weber and Weber (2006) with business and pre-business students of a university in the United States (N=851) using the BERSI (Business Education's Role in Addressing Social Issues) scale, actually found students themselves did subscribe to the idea that business education should prepare graduates to be more concerned with the social impacts caused by corporate actions.

Some scholars, however, argued that ethical values are probably formed in the early days of our lives and cast their doubt as to whether ethics could be taught or not (Miesing & Preble, 1985; O'Fallon & Butterfield, 2011; Seshardri, Broekemier & Nelson, 1997). Others, however, supported that BE/CSR education can positively influence students' development in morality towards BE/CSR in different respects (Angelidis & Ibrahim, 2004; Lau, 2010; Martinov-Bennie & Mladenovic, 2015; McCabe, Dukerich, & Dutton, 1991; Ng, White, Lee & Moneta, 2009; Nguyen, Basuray, Smith, Kopka & McCulloh, 2008; Simmons, Shafer & Snell, 2009; Williams & Dewett, 2005). Furthermore it was found the application of a learning stimulus in particular could be an effective means to illicit changes in ethical responses or attitudes (Gautschi & Jones, 1998; Weber & Glyptis, 2000). Since BE and CSR "are not mutually exclusive; rather, they are interrelated and somewhat interdependent" (Joyner & Payne, 2002, p. 301), it would seem justifiable to believe that specific learning stimulus can also be a useful means for developing students' CSRO.

# **1.1.2** Theoretical background of the research topic

The topic of attitude, what makes up attitude, how attitude is related to behaviour, its role in the decision-making process etc. have been topics of scholarly investigation for a long period



of time. This research is about how to change business students' CSRO which basically is an attitudinal based study. Although it is beyond the scope of this study to explore in-depth the said areas in relation to attitude, by borrowing some conceptual notions on attitude, it is helpful in devising and justifying a study that aims to influence students' ethical attitude or CSRO. The next part continues to draw on some long established theories on attitude, which become conceptual grounds for the entire thesis to build upon. Figure 1.1 summarizes three main conceptual building blocks that denote the overall framework of this study.

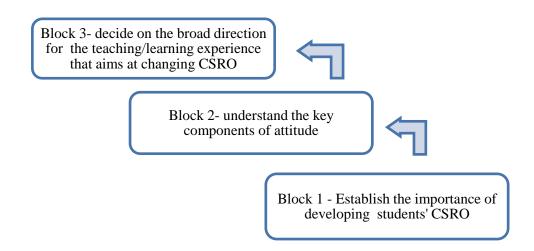


Figure 1.1. Conceptual Building Blocks of the Thesis Framework

The first building block aims to expound the linkage between attitude and behaviour, especially the presence of attitude in the ethical decision-making process, so as to justify the importance of a study in changing the orientation or attitude towards CSR. As attitude itself is a rather abstract notion, the second building block continues to discuss what makes up attitude and to present them into more concrete terms. Through understanding what makes up attitude, it will become the basis of the third building block that is the direction in designing a learning/teaching experience that aims at changing students' attitude or orientation towards



CSR (CSRO). It should be noted that only some broad directions are covered in this early developmental stage of the thesis, further details on the content of the learning/teaching experience, the exact theme and research method to be used etc. will be elaborated after the literature review in Chapter 2 and also Chapter 3 Research Methodology and Methods.

# 1.1.2.1 Building block 1 - attitude and behaviour

The relationship between attitude and behaviour has been f topic of academic inquiry for a very long time. Ostensibly, it is easy to assume a simple causal relationship between attitude and overt behavior. Attitude alone, however, may not always be the only predictor to behaviour (Wicker, 1969). There are different moderating variables behind behaviours, and despite the various scopes and levels of complexity of prior studies, in general terms they appear to converge with the idea that attitude is one of the contributory factors leading to a person's behavior.

A well-known and widely cited theory in the domain of what affects behaviours is the Theory of Reasoned Action (TRA) (Ajzen & Fishbein, 1980; Fishbein & Ajzen 1975), later revised as the Theory of Planned Behaviour (TPB) (Ajzen, 1985, 1988). Figure 1.2 below is a schematic presentation of the TPB model. Fishbein and Ajzen's (2010) described attitude as "a latent disposition or tendency to respond with some degree of favourableness or unfavorableness to a psychological object" (p. 76), and they reckoned attitude can actually be learned (Fishbein & Ajzen, 1975).





*Figure 1.2.* Schematic Presentation of the Theory of Planned Behaviour Model. Adapted from: Ajzen, I., (1985, *pp. 11-39*).

The TPB explains the variable of "attitude" together with a person's "subjective norm" and "perceived behavioural control" jointly mediate a person's intention to act, that in turn influences and precedes the subsequent behaviour. "Subjective norms" refers to one's expectation of the relevant parties such as friends and family over a particular object or situation. "Perceived behavioural control" refers to the extent a person believes one can hinder or facilitate the performance of behaviour. These variables interact and mingle with each other, then exert influences to the final behavior.

It should be noted that ethical attitude, however, does not always lead to ethical behavior. Sometimes an ethical issue can affect multiple stakeholders with conflicting interests, creating dilemmas and trade-offs in ethical decisions. Cognitive dissonance that arouses inconsistency between attitude and ultimate behaviour may result (Festinger, 1962). This can be illustrated in a study by Cahn and Glass (2011) in which students gave priority to financial concerns ahead of ethical concerns when they analyzed an ethical dilemma that involved personal interest; but when it was about a current news event, ethical concerns preceded financial concerns. This confirms the standards of personal and social justices are not always completely synchronized, leaving some room for incompatibility between attitude and



behaviour. Nevertheless regardless of the potentially confounding factors, there is support for the view that a person' ethical belief or attitude plays a contributory role to impact on one's ethical behaviour (Hofer, 2004; Kardash & Howell, 2000). Even though attitude alone may not always yield to compatible behavior, it is still reasonable to say that knowing how to influence a person's attitude should have meaningful implications and chance in affecting or predicting behaviour.

The TPB is a generic model that has been used in many academic disciplines to explain the relationship between attitude and behaviour. If TPB is applied in the ethics context, arguably we can expect a person's moral attitude is also a moderating variable that precedes ethical behaviour. In fact Griseri (2002) discerned that "if business ethics is to be a force for change in business activity then it needs to be targeted at attitudes" (p. 390). Following this line of thought, if business education can develop students' ethical attitude or positively influence their CSRO, there should be a higher propensity for students to make more socially responsible decisions and eventually engage in ethical behaviours. Furthermore, if we are able to influence students' CSRO to favour more on certain non-economic dimensions of CSR, such as the ethical and philanthropic aspects, as compared to economic performance, it is then reasonable to expect that students' inclination to act accordingly in the future will also increase. It is quite beyond the ability of business schools to ensure their graduates will behave in ethically desirable manners, but by knowing how to develop students' ethical orientation or attitude at least we are targeting at a factor that has strategic value.

## 1.1.2.2 Building block 2 - key components of attitude



Having established the link between attitude and behaviour, this section continues to understand the position of attitude in the ethical decision process and to further dissect the nature of attitude.

In order to make ethical decision, one has to develop some kind of moral competence so as to make informed ethical decision (Kohlberg, 1964). Kohlberg's (1964, 1981, 1984) classic Stages of Moral Development rationalized a person's moral reasoning and ethical decision by a moral development continuum that matured through step-like and attitudinal based stages; starting from a more primitive stage of self-justification that stemmed from obedience and avoidance of punishment, moving to adherence of social norms and finally advanced to the last stage of moral discernment and conscience. During the process, one has to recognize the issue according to one's ethical capabilities, look into his/her own ethical attitude to evaluate the situation. In another study by Rest (1984a), he forwarded that when a person encountered a moral issue that required decision-making, one would first recognize the issue and then formed moral judgment, followed by moral intent and subsequently moral behaviours. So broadly speaking, an individual's ethical reasoning ability affects how one perceives and judges an ethical situation and eventually influences the decisions made (Forte, 2004). Ethical values and attitude are somehow embedded within and weaved through the ethical decisionmaking process, by internalizing certain ethical values this may drive to compatible decisions and perhaps actions (Sims & Felton Jr., 2006).

Even though ethical knowledge and cognitive ability to recognize ethical issues are important elements in forming ethical reasoning and attitude, such abilities alone may not always lead to ethical decisions and henceforth behaviours. Ethics theories defined moral development with the process of moral awareness, reasoning, judgment, then ethical decision-making, all



of which constantly draws on a person's perception of what is right or wrong (Buchko & Buchko, 2009). In this process of deciding on the right and wrong, apart from using cognitive skills, other capacities such as moral character, sensitivity and empathy do come into the picture. Moral sensitivity involves how one perceives an ethical issue (Narvaez, 1996); having an empathetic and affective attitude may increase the chance to realize the existence of a moral issue. Besides, it may aid a person to interpret the matter with stronger compassion and respond with corresponding behaviours (Jagger & Volkman, 2014). Therefore in order to develop a person's ethicality fully, one has to look beyond cognitive competence and cultivate the affective attributes as well, so that individuals can better understand the ethical situations, sympathize or may even to self-sacrifice (Vetlesen, 1994).

Griseri (2002) purported the approach in BE education should include both cognitive and affective elements which were embedded in a person's ethical values and could influence ethical behaviours. Rest (1984b) opined that the development of morality or ethicality might not follow a linear model expressed in the pattern of discrete stages; cognitive, affective and behavioural elements could in fact interact throughout the process of moral development. That is the intellectual, emotional and behavioural dimensions actually intertwined in the ethical reasoning and decision making process. Established theories echoed the usage of a trilogy view to dissect the basic make-up of attitude with three components namely: cognitive, affective and conative (Allport, 1935; Ajzen & Fishbein, 1980; Breckler, 1984; Fishbein & Ajzen, 1975, 2010; Katz & Stotland, 1959; Rosenberg & Hovland, 1960). This triology view has been widely used and laid down the foundations for the development of various academic disciplines concerning attitude.



The scope and focus of this study is in no way a microscopic analysis of the constituents of attitude and the process of ethical decision-making. The development of morality and moral attitude itself involves multi-dimensional variables that are subjected to the influence from and interaction with a range of variables. Based on some widely accepted literature, a generalizable link between attitude and behavior, and attitude as one of the moderating variables in ethical decision-making is established; on the whole attitude is regarded to carry the cognitive, affective and conative attributes. The above summarized some key theoretical premises that set the path for the next stage in developing this thesis i.e. to develop a teaching and learning experience that aims at changing students' attitude towards CSR.

# 1.1.2.3 Building block 3 - broad direction for a learning and teaching experience

Synthesized from various literatures, business ethics scholar Rossouw (2002) suggested three expected learning outcomes for BE education. He elucidated a comprehensive conceptual framework that accorded with the tri-components or trilogy view of attitude covering the cognitive, affective and conative elements; but only that Rossouw (2002) expressed them in slightly different terminologies. Figure 1.3 extracts the key features of Rossouw's (2002) expected learning outcomes, together with their respective underlying presuppositions and suggested pedagogical and learning means to deliver each of the outcomes.

Rossouw (2002) named the three learning outcomes as cognitive competence, behavioural competence and managerial competence. Cognitive competence refers to the development of moral knowledge that can empower students to become conversant with business ethics concepts, facts and information, vocabularies to articulate and discourse on the topic i.e.



become ethically literate, so as to make ethical evaluation, discourse and judgments. Second is behavioural competence that aims at internal transformation and cultivation of moral virtues, ethical sensitivity and moral character development that answers for the affective and volitional aspects of attitude. Learning experiences that stimulate insights and latent feelings,

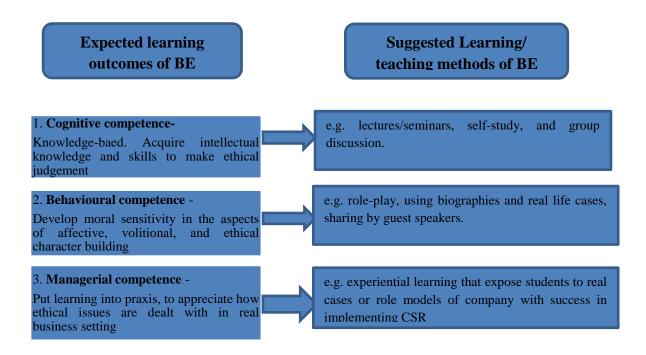


Figure 1.3. An Approach in Teaching Business Ethics (Rossouw, 2002, pp. 411-433).

offer social interactions and participations, can facilitate the development of this attribute. Third is managerial competence. It aims to heighten students' awareness of their future career as managers and augment their capabilities to deal with ethical issues in reality. Learning activities that demonstrate how CSR can be achieved in a real organizational context and how BE can become ingrained in business practice is beneficial to the development of this competence. Even though this learning outcome of managerial competence sounds action oriented, it does not mean the performance of ethical behavior by the students themselves.



This section has discussed the three main conceptual building blocks upon which the thesis is developed. Summing up, the primary purpose of this study is to find out how to change business students' attitude or orientation towards CSR. Some relevant conceptual backgrounds have been reviewed that firstly confirm the value for a study that aims at changing students' CSRO. Drawing on various literatures on the notion of attitude, the make-up of attitude by the elements of cognitive, affective and conative competence becomes the premise for the third building block to develop upon. Rossouw's (2002) learning outcomes in BE education that resembles the trilogy view of attitude, offers useful directions as to how to translate the purpose of this thesis into specific learning and teaching experience in developing CSRO. In order to have a better chance to accomplish the objective in changing students' CSR attitude, the activities of the teaching/learning activity should bear one or more of the basic features of attitude, i.e., cognitive, affective or conative.

With regard to the exact form and format of the CSR educational intervention to be adopted in this study, it will be considered further in the light of the findings from the literature review in Chapter 2. Given the practical constraints on time and resources, it is more realistic to aim at a CSR co-curricular activity and have its effectiveness in changing students' CSRO tested. Further details of the activity rundown and content will be explained in Chapter 3.

### **1.2** Significance of the Study

As mentioned in the beginning, business students will eventually become business decisionmakers, this justifies the value of a study that aims to test for effective means in cultivating students' ethicality. Other than this, the current cohorts of college students as part of the



millennial generation do give added meaning to conduct such a study. Demographically, Howe and Nadler (2009) referred the millennial generation as those who were born between 1982 –2004. This group of people has high spending power and makes up the largest market share globally therefore purchase decisions made by the millennial will have lasting impacts on our society and the planet (Bucic, Harris & Arli, 2012). In other words, students are playing the dual roles as future business practitioners and life-long consumers, their ethical consideration when making related decisions will vastly affect our social and environmental well-being, and there is indeed to a necessity to look for ways in in uplifting students' social sensitivity and ethicality.

Furthermore, a literature search on tertiary education and the development of business students' CSRO (see Chapter 2), revealed that more studies were devoted in investigating *why* we need to teach BE or CSR, but much less in understanding the *how* and their efficacies, indicating current studies to explore the effectiveness of learning and teaching activities in changing CSRO are rather inadequate (Kleinrichert, Tosti-Kharas, Albert & Eng, 2013). So the preliminary research idea is to conduct a study on some kind of teaching/learning experience of CSR that aims to develop students' CSRO.

# 1.2.1 The significance to study the Hong Kong Chinese business students

The sheer size of the Chinese economy and its multiplier effects globally make the issue of its CSRO no small or localized matter; and a study on CSR education for Chinese business students is of academic and practical value. To tackle this topic in such a large student



population, more tightly defined parameters on student samples is needed such that we can better utilize resources to target at useful research outputs and without being over aggressive. Samples of this study will be recruited from the Hong Kong Chinese business student population. In fact the majority of the business students in Hong Kong are Chinese ethnically with Hong Kong Permanent Residents' status, so the focus will be on this largest segment of the business student population in Hong Kong.

Once a sparsely populated fishing village at the remote southern part of China, Hong Kong was ceded to Britain after the First Anglo-Chinese War (1938-42). It became a British colony during the years 1841-1997. In 1997 the sovereignty of Hong Kong was handed back to China and it is now one of its special administrative regions. Up to now the economic ties and partnership between Hong Kong and the Mainland remain very strong. Some statistics released by the Census and Statistics Department of the Hong Kong Special Administrative Region (2015a, 2015b, 2015c) can be used as reference points to illustrate the magnitude of such a strong partnership between Hong Kong and the Mainland. In 2014, 43.3% of Hong Kong's total exports of services went to China, and reciprocally 38% of the imports came from them. During the year 2015, 49% of Hong Kong's total imported merchandise and 53.7% of the total exported merchandise were traded with China. To the Mainland government, Hong Kong has not only been a key driver in its economic modernization for many years, it is also China's window to showcase its success to the world in upholding the "one country two system policy" i.e. a parallel run of both the socialist and capitalist system within China.

With the advantage of work mobility in the Mainland, business graduates of Hong Kong in fact have ample opportunities to go north for their career advancement, hence bringing with



them their CSR beliefs and values. The Census and Statistics Department of the HKSAR Government (2011) conducted a General Household Survey to enquire on the status of Hong Kong residents working in Mainland China. In 2009 some 175,100 Hong Kong residents, about 4.9 % of the total working population of Hong Kong, worked in the Mainland. Of this group of people 41.1% has post-secondary education standard and 32% were actually degree holders. Most of them worked as managers, administrators or professionals; 18.4% of them worked as employees and 74.8% were employees. For those who worked as employees 90.9% were employed by companies in Hong Kong and being relocated to the Mainland.

Such a phenomenon carries at least two implications. Firstly, this group of people from Hong Kong might find themselves working in ethically challenging situations where "Guanxi" (relationships) is likely to prevail over codified legislation in the Mainland (Dunfee & Warren, 2001). Secondly, as said earlier 32% of those who worked in China were actually degree holders, who were likely to command decision-making roles in the business scene at some point in time. In other words, Hong Kong business students will have a good chance to bring into China not only their business skills and knowledge but also their CSRO. Simply put, their attitude towards CSR can become part of the overall attitude of China's businesses towards CSR. In sum, the above discussion has highlighted the rationales that support the significance for a study in knowing how to effectively develop CSRO for the Hong Kong Chinese business students.

#### 1.2.2 Hong Kong students' attitude towards BE/CSRO



Before embarking on this study, some ideas about the attitudes towards BE or CSRO of the Hong Kong Chinese students can be drawn from a few available studies. Burton, Farh and Hegarty (2000) used Aupperle (1982)'s E-CSRO measurement scale to assess university students' CSRO, and found that business students in a Hong Kong university (N=157) attached markedly higher importance to the Economic dimension over the non-economic ones when compared with their United States counterparts (N=165). This is echoed by a study done by Fitzpatrick and Cheng (2014) which applied PRESOR (Perception of Ethics and Social Responsibility) by Singhapakdi, Vitell, Rallapalli and Kraft (1996) to some undergraduate business students in Hong Kong (N=48) and the United States (N=185). In general the Hong Kong group was found to be less sensitive to CSR issues and ethics than the United States group. Phau and Kea (2007) compared the attitude of a mix of undergraduate and postgraduate university students from Australia, Singapore and Hong Kong towards business ethics using the ATBEQ (Attitude Towards Business Ethics Questionnaire). The Hong Kong group has N=123 samples and most of them came from the business stream. The self-reported attitudinal scores of the Hong Kong group, reflecting if they were ethically minded towards BE, was slightly below to the Singaporean group but higher than those from the Australian group.

Rawwas, Swaidan and Isakson (2007) approached the topic of business students' ethicality by investigating MBA students' views on academic dishonesty. They found in general MBA students from a university in Hong Kong (N=140) were less sensitive than those from the United States (N=288) over the issue of academic dishonesty. Danon-Leva, Cavico and Mujtaba (2010) also studied graduate level business students in Hong Kong and the United States. They used the Personal Business Ethical Scores (PBES) questionnaire for evaluation and found that when the Hong Kong (N=250) and the United States (N=250) students were



presented with the same ethical dilemma; the United States group had higher ethical scores than that from Hong Kong.

In the same study by Danon-Leva et al. (2010), they applied Hofstede's Culture Theory to examine the Hong Kong students samples and found that cultural value indices of Hong Kong people which were once low in individualism and high in both power distance and long-term orientation (Hofstede, 2001) was changing rapidly. It now became much higher in individualism and uncertainty avoidance, coupled with a marked drop in power distances and long-term orientation. Though the relationship between changing cultural values with ethical values is still subject to further inquiry, the succinct point is that the phenomenon of the undercurrent changes in cultural value together with the impact from globalization that has increased our vulnerability to corporate misconduct, warn us the need to be on guard with business students' ethicality. Remarks made by Redding in 1990 about Hong Kong as a place where "materialism and pragmatism prevailed" are still very much true today. And business schools in Hong Kong have to remain vigilant in finding efficacious means to cultivate more ethically minded graduates.

Overall, the aims and research methods used in these studies are fragmented; their results are neither strictly comparable nor generalizable. Yet their findings seem to concur with the thought that ethicality of business students in Hong Kong remains dubious, and further investigation is warranted.

So far in Sections 1.2.1 and 1.2.2, two issues have been established, firstly the value of a study on how to develop Hong Kong Chinese business students' CSRO, secondly the existing morality/ CSRO of this group of students that support for such an investigation.



### **1.2.3** Other ecological significance of this study

The above analysis supported the significance of a study on the Hong Kong Chinese business students not only because it would enable us to have a better grasp on how to conduct CSR education in Hong Kong, it actually has transferrable potential to develop CSRO for students in Mainland China. With the economy growing on a fast-track, social problems caused by irresponsible corporate actions and malpractices in the Mainland appear in newspaper headlines from time to time. In fact the Western concept of CSR only began to take root in business schools of China for just more than thirty years ago (Wang & Juslin, 2009). Back in 1991 the Chinese Government only authorized nine universities to start running MBA programmes (Ou & Enderle, 2009). About a decade later, Wu (2003) found that the ratio for universities in Mainland China that offered business ethics course was still less than one in thirty. From a slightly more recent national survey conducted in 2006 by Zhou, Ou and Enderle (2009), they found that altogether 95 universities running MBA programmes in China; out of these 95 universities, only 37 (38.9%) business schools offered some kind of BE related courses in their respective programs. Seemingly, there are still much room for growth and improvement in China's CSR education.

Hopefully this one small step being taken to understand how well an educational activity can influence business students' CSRO in Hong Kong can have useful implication to BE/CSR education to Mainland China business students as well. As mentioned already, Hong Kong students have the advantage to freely work and live in the Mainland henceforth they can bring with them their CSRO and values to their workplace and exerting potential influences to the business scene in China. Besides, even though this study focuses on CSR and the samples are sub-degree business students, the outcomes can bear ecological implications for



similar educational initiatives and students of similar age group e.g. it can be applied to the teaching/learning of BE and applicable to undergraduates in their junior years.

#### **1.3** Structure of the Thesis

This thesis is divided into 6 chapters and the main topics of each chapter are highlighted as follows. Chapter 1 explains the background, significance and structure of the entire thesis. Chapter 2 is the literature review on several discrete but relevant areas to this study. Section 2.1 Part 1 of the literature review traces back on how definitions of CSR have evolved in order to derive a definitional framework for this study. Section 2.2 Part 2 of the literature review goes further into the literature related to A.B. Carroll's (1979) CSR framework. Section 2.3 Part 3 of the literature search and review examines the kind of academic inquiries that had been conducted in relation to the learning/ teaching of CSR and the development of students' CSRO, so as to identify research gaps by theme and by research method. As there were only limited studies that had applied pedagogical and learning methods or to investigate the "how" in influencing students' CSRO specifically, Section 2.4, Part 4 of the literature review extends the scope of the literature search to writings on the teaching/learning of BE. Section 2.5 Part 5 of the literature review summarizes the measurement instruments that assess CSRO; this Section also expounds on the ipsative nature of E-CSRO and the rationale of choosing it as the measurement scale of this study. Section 2.6 gives an overview on the current status of BE/CSR education in Hong Kong. Section 2.7 consolidates the key findings of the literature review and based on which the research question and hypothesis are then spelt out. Section 2.8 explains the limitation of the literature review and ends with a chapter summary.



Chapter 3 is on research methodology and method. Section 3.1 first explains the overall methodology of this study; and a quasi-experiment will be adopted as the research method. The experiment involves an intervention and a measurement scale to collect pre-posttest data from the Experimental (X) and Control (C) groups. Section 3.2 focuses on the content of the intervention, the administrative and data collection procedures, outlines the usage of repeated measure multiple analysis of variance MANOVA as the statistical procedure to assess prepost CSRO scores of the X and C groups. Since E-CSRO originates in English, it is first translated into Chinese (C-CSRO) and then have the Chinese version subjected to validity tests before applying to this study. Section 3.3 describes how to adapt the E-CSRO into a translatable version, addresses the methods of translation from English (E-CSRO) into Chinese (C-CSRO), outlines the validation processes from samples recruitment up to data collection, and explains the usage of exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) as the statistical methods to validate C-CSRO. Section 3.4 reports the statistical results in validating C-CSRO from two split samples using EFA and CFA respectively. Chapter 4 reports on the statistical results of using repeated measure MANOVA on data obtained from the X and C groups at pre and post-intervention, and tests the hypotheses raised at the end of Chapter 2 for within and between group differences.

Chapter 5 discusses the implications of this study from various perspectives. Section 5.1 is the immediate results; Section 5.2 covers the implications to CSR education at the curriculum level; Section 5.3 is the implications at the operational level; Section 5.4 examines some of the ecological implication of this study; Section 5.5 elaborates on the implication in relation to educational research. Chapter 6 reviews the overall findings of this study, Section 6.1 is about the limitations; Section 6.2 recapitulates significance of this study and Section 6.3 is the conclusion.



# 1.4 Chapter Summary

While our world is more connected and symbiotic than ever, the complexity and scale of contemporary social problems are becoming unprecedented. Paradoxes and dichotomies of our age are intensified and magnified at an all-time high. Paradigm shifts are happening in the business world where societal and business objective are no longer mutually exclusive nor is the former always secondary to the latter. There have been constant noises from the general public that business schools have to do more in preparing ethically minded and socially responsible graduates. To answer for the unique needs of our time, cultivating future business professionals with stronger ethicality should sit high up on the business education agenda. At the end of the day, we want to see more socially responsible business school graduates entering into their profession and it is against such societal background that this thesis is being put forward.

The core purpose of this study is to implement a CSR themed educational intervention for a group of Hong Kong Chinese business students, and to investigate its efficacy in changing the students' CSRO. There are three building blocks that form the conceptual foundation of the thesis. Firstly attitude is one of the major determinants in deciding a person's intention to act; by the same token ethical attitude also weaves through the ethical decision-making process that may impact behaviour. This implies the strategic value of a study that influences ethical attitude. Secondly the long established scholarly view that attitude is composed of three key elements of cognitive, affective and conative illuminates this research as to how to approach a study that aims at changing attitude. Thirdly Rossouw's (2002) suggestion on BE education that echo to the trilogy view of attitude provides a solid direction in designing the content of the intervention. These building blocks together shape an overall framework for



this study and set the way forward as to how the intervention activities can be further scaffold. Chapter 1 explained the background, outlined the structural framework of the overall thesis and laid out a broad direction for an intervention that aims to influence the orientation of business students towards CSR (CSRO). The next chapter is literatures review on a number of discrete areas in relation to this study through which scholarly insights are gathered, thematic and research methodological gaps are identified that can assist to further specify the research question and hypotheses.



# Chapter 2

# LITERATURE REVIEW

Chapter 2 is the literature review on six core areas in relation to this study. The whole Chapter is divided into eight sub-sections. Section 2.1 is Part 1 of the literature review that scrolls through the developmental history of the CSR concept. Section 2.2 is Part 2 of the literature review that explains the Pyramid of CSR framework and why it is adopted in this study. Section 2.3 is Part 3 of the literature review that focuses on understanding what studies had been done in relation to the tertiary education sector and the teaching/ learning of CSR or development of students' CSRO. Based on findings from Section 2.3, research gaps both thematically and methodically are identified. Yet it is noted that literature specifically on the teaching/learning methods of CSR is limited. Owing to this, Section 2.4 Part 4 of the literature review extends the search scope to cover scholarly works that are specifically on the teaching/ learning methods of BE, so that more methods can be elicited. Section 2.5 is Part 5 of the literature review that summarizes different measurement scales in assessing CSRO and explains why E-CSRO is suitable both as a measurement scale for this study and as a source scale to be translated into Chinese. Section 2.6 is a broad overview on the current status of CSR education in Hong Kong. Section 2.7 consolidates the key outcomes obtained from the literature review from Section 2.1 to 2.6, and becomes the premises for the research question and hypotheses of this thesis to be built upon. Section 2.8 is the chapter summary. Figure 2.1 below sums up the key structural aspects of Structure 2 in a diagram.



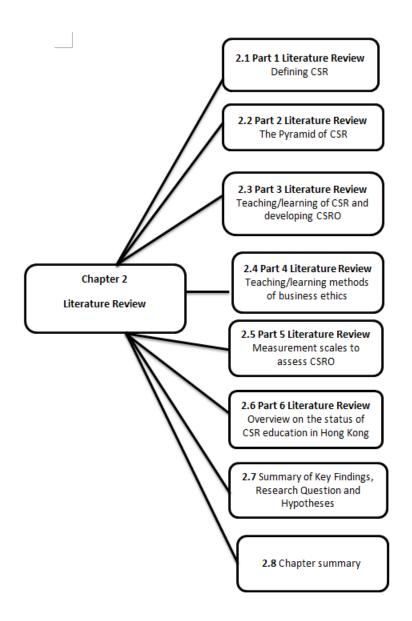


Figure 2. 1 Structure of Chapter 2 Literature Review

# 2.1 Part 1 of Literature Review - Defining CSR

The term corporate social responsibilities (CSR) has become a buzzword in the business field. In very simple terms CSR can simply mean the kind of responsibilities that businesses have to our society. Yet when the topic of CSR *per se* is being explored within an academic context, it can grow into a rather massive even illusive domain. Göbbels (2002) reckoned that



CSR itself was an enormous topic and the lack of a common definition could hinder its academic and practical development (as cited in Van Marrewijk, 2003, p.96).

Based on a content analysis framework and specific terminologies, Dahlsrud (2008) concluded that there were at least 37 definitions for CSR. Obviously there are bound to be more than that if we look beyond Dahlsrud's demarcation. What CSR is would indeed vary for different people in different times. As Votaw (1973, p.11) pointed out that "it (CSR) means something, but not always the same thing to everybody". There is indeed much fluidity and multiplicity in the nature of CSR. So instead of looking for a single and universally agreed definition, a more commonly accepted definition should suffice.

Scholars looked at CSR from different perspectives. Some tackled the issue with a philosophical or theoretical approach. For example Brummer (1991) addressed CSR in the light of stakeholder theory, social demandingness theory and social activist theory; Moir (2001) examined the meaning of CSR in the context of stakeholder theory, social contracts theory and legitimacy theory; Garriga and Melé (2004) categorized CSR based on instrumental theories, political theories, integrative theories and ethical theories. Given the sole objective of this part of the literature review is to identify a widely accepted definitional and mainstream framework on CSR rather than to delve into CSR-related philosophical and theoretical arguments, henceforth scrutinizing its development chronologically should be fit for the purpose.

Wilber (2000) in his discussion on the evolutionary development of both the physical and conceptual world said "in any developmental sequence, what is whole at one stage becomes a part of a larger whole at the next stage" (p. 32); this "converts "heaps into wholes, disjointed



fragments into networks of mutual interaction" (p. 33); and "growth occurs in stages, and stages are ranked in both a logical and chronological order" (p.36). Drawing on Wilber's insights, Van Marrewijk (2003, p. 97) described the evolution of CSR "as the natural orientations emerged, they clearly show an increase of integratedness and complexity, each stage including and transcending the previous ones". With over sixty years of active development and distinguished phases of evolution, many scholars in fact defined CSR by using a chronological approach (A.B. Carroll, 1999; Cannon, 2012; Cochran, 2007; Frederick, 2006; Joyner & Payne, 2002; Wang & Juslin, 2012).

The developmental history of CSR appeared to have marked presence initially in the United Kingdom and United States, and a relatively recent exposure in Europe (Matten & Moon, 2004; 2008) and elsewhere in other parts of the world e.g. Australasia, South America, Africa, South, East and South East Asia etc. (Chapple & Moon, 2005; Puppim de Oliveira & Vargas, 2005; Visser, Middleton, & McIntosh, 2005). Since the start of the twentieth century, the momentum of CSR development in both the academic and business world became distinctively faster and more notable in the United States. As such, sources of literature that are used here to account for the chronological development of CSR especially in the earlier years, mainly originated from the United States. Also, since the idea of CSR started much earlier as a formal discipline of academic interest in the West, given the constraints in time resource, only CSR literature published in English were referenced with as such the following discussion that traces the development of CSR mainly come from a Western perspective.

## 2.1.1 The evolution of a definition



The Industrial Revolution originated in the United Kingdom roughly from the 1760s. This watershed moment in the history of mankind marked the formation of the capitalist economy and the birth of modern business enterprises. In those days running businesses in a socially responsible manner was an exception rather than a norm. During the late 18th through to the 19th century, there were some distinguished businesses and political figures in the United Kingdom such as Josiah Wedgewood, Robert Owens, Edwin Chadwick, Michael Sadler and Anthony Ashley-Cooper (Humphreys, Gregor & Humphreys, 2006) whom had assumed roles of social reformers in parallel to their own professions. They advocated improvement to deplorable working conditions of workers, and such humanitarian spirit in doing businesses at that time very often stemmed from the Christian faith of the advocates.

In the early twentieth century, the Industrial Revolution spread over to Europe and the United States, and began to gather strong momentums especially in the United States. In those years CSR was far from being a business ritual and it had not received the due attention from the academia. In the days when economic wealth was still a relative scarcity, businesses were only interested to endeavours that could answer to investors' needs for economic returns. Henceforth business mainly aimed at profit-maximization so that resources could be re-invested for further rewards (Hoffman, 2007). This business philosophy found its ground from agency theory that argued businesses were answerable to their shareholders and their overarching responsibility was to stay profitable and economically sound (Wan, 2006). As a result the economic aspect of CSR prevailed, making it hard to convince entrepreneurs to engage with the non-economic or social aspects of CSR.

Starting from the third decade of the 20th century, some noticeable scholarly work began to appear in the United States that explored ethical aspects in business management. For



example some advocated more human-oriented treatment of employees (Mayo, 1933) and the idea of welfare capitalism (Barnard, 1938); others simply argued that businesses ought to be more socially responsible (Dodd, 1932; Sheldon, 1928; Simon, 1945). Nevertheless the economic vs. non-economic or socially-oriented aspects of CSR were somehow inherently competing. For directing resources to perform the non-economic CSR could be seen as a potential threat to a business's ability in fulfilling its economic motive (Levitt, 1958). The dominating view at that time still focused on the shareholders' approach to maximize returns for its owners as long as business action could stay within the legal limits (Friedman, 1962; Quazi & O'Brien, 2000).

From the 1950s onwards, the impetus to look for a comprehensive meaning of CSR grew stronger. The 1950s can be broadly regarded as the starting point for a soul-searching era for CSR. CSR was moving under the spotlight in both the business and academic arenas and became a more recognizable area of interests. During the past sixty plus years, the development of CSR has advanced through some discrete stages. Bowen is commonly regarded as one of the earliest and seminal scholars of CSR (A.B. Carroll, 1999). In his writing Bowen (1953) challenged businessmen to pursue more socially desirable decisions and actions thus open up the long road of scholarly debate about what CSR was and how to achieve it. Business management guru Peter Drucker (1954) was among the early scholars who subscribed to the idea that businesses should also bear non-economic social responsibilities.

From the 1960s onwards, more and more scholars joined in to search, invent and reinvent the meaning for this still rather vague topic of CSR. Apparently economic performance still remains as a founding component of CSR and continues to appear as an important one



(Greenfield, 2004; Henderson, 2004). Despite of its importance, however, economic achievement alone certainly does not equate to CSR. The fact is while businesses are empowered to pursue economic rewards, simultaneously their operations will touch on and affect numerous people's lives and living, both explicitly and implicitly. In view of this, CSR should surpass mere economic returns and care for its social impacts as well. Some influential writings in the 1960s include Davis (1960, 1967), Frederick (1960) and McGuire (1963). They converged with the idea that in order to fulfil CSR, businesses had to bear some social responsibilities beyond their economic achievements. In retrospect, the 1960s was a period of growing self-enlightenment for businesses to become aware of using their power with more social consciousness. Yet what exactly parameterized the domain of CSR was subject to much debate, not to mention how CSR could be translated into specific acts. Concrete proposals about the implementation of CSR were still rather remote at that stage.

During the course of running a business, businessmen might have directly or indirectly created certain social problems; and so there were clear voices from scholars that corporate involvement was mandatory in solving the real social issues (Eilbert & Parket, 1973). In 1971 the Committee for Economic Development (CED) subsumed the key elements of CSR into a holistic and more structured picture saying that CSR actually was a layered concept with the economic duty at the inner circle, social sensitivity at the intermediate and the outermost layer was the participation by businesses in bettering our world. Some scholars echoed this idea in different extent and specificities. Preston and Post (1975) opined that CSR could mean both economic performance and legal compliance. Holmes (1976) argued that CSR should include profit-making, law abiding and contributing to resolve social problems.



From the late 1960s, certain undercurrents and social trends began to emerge. Major civil rights movements took shape in the United States advocating protection of stakeholders' interests including employees, consumers and the environment. Such movements subsequently led to the enactment of a series of related legislation that touched on "almost every business decision ranging from the production of goods and services to their packaging, distribution, marketing and service" (A.B. Carroll, 1998, p.174). As a result obeying the law was generally accepted as a corporate mandate (A.B. Carroll, 1999, A.B. Carroll & Shabana, 2010). When ethics are codified and promulgated they become rules and laws. And the uncodified area of ethicality, represents pure ethical responsibilities that are expected and desirable from the society at large, and businesses are free to decide on what extent they will comply with these expectations (A.B. Carroll, 1998).

In the 1970s, academic research on CSR flourished. In addition to gratifying economic returns for shareholders, CSR had branched into complying with the law and behaving ethically (Davis & Blomstrom, 1975; Abbott & Monsen, 1979; Manne & Wallich, 1972; Steiner, 1975; Zenisek, 1979). There was a more definite and common acknowledgement that besides economic, CSR should also encompass some non-economic duties including legal, ethical and even philanthropic duties, depending on individual scholar's views.

With the concretization of what CSR meant, it was then possible to expand the discussion of CSR from businesses' obligations to the development of more practical actions for its implementation. As such more academics began to steer their research trajectory towards CSR actions during this era. Sethi (1975) coined the term 'corporate social performance' (CSP) which was about using an outcome-oriented approach to examine CSR. Along similar lines, Frederick (1978) suggested the notion of corporate social responsiveness (CSR<sub>2</sub>) that



focused on the CSR responses of corporations to social pressure. With this notion of  $CSR_2$ , firms have to respond to social issues and demands of stakeholders in their processes of production, monitoring, evaluation, even rectification and compensation. By and large, the notion of CSR had grown from a broad philosophy or simply some good business intentions into specific domains and dimensions.

Approaching the end of the 1970s, A.B. Carroll (1979) proposed a seminal framework to explain corporate social performance CSP. Within this larger model of CSP, A.B. Carroll (1979) argued that CSP could be expressed through the underlying interactions among three aspects: firstly the conceptual dimensions of CSR, secondly the key CSR related social issues to be addressed and thirdly the possible responses from the businesses. Later A.B. Carroll (1991a) renamed his proposal as the Pyramid of CSR. As of today this framework remains the most widely used and cited definition of CSR, and is regarded as one of the most prestigious and leading CSR paradigms and definition (Baden & Harwod, 2013; Garriga & Melè, 2004, Visser, 2005, Windsor, 2006). Further details of this framework are elaborated in the next Section 2.2.

From the 1980s and especially from the 1990s onwards, scholarly works in CSR proliferated and transformed into a network of related themes and typologies. Summed up by Visser and Matten (2010, p. ix) "....we have seen an unprecedented rise of the CSR language, tools, actors, strategies and practices in industry all over the world." Among these concepts and propositions, the stakeholders' approach is a significant conceptual development with Freeman (1984) as one of the earlier proposers and supported by others (Agle & Mitchell, 1999; Donaldson & Preston, 1995; Steiner & Steiner, 2000). The stakeholder's approach expounded CSR from a relational perspective, i.e. between corporate endeavours to other



parties in our society. Businesses have to consider CSR from the interest of their stakeholders who have explicit claims over corporate deeds e.g. employees and customers, and those who have less direct but equally legitimate claims e.g. the general public at large (Scott, 2007). By looking at CSR from the receivers' angle, more specific CSR actions can then be envisaged.

Besides the stakeholders' approach, there was a also plethora of CSR synonymous or CSR related appellations and concepts that appeared from the 1980s onwards. The more distinctive ones include issues management (Wartick & Rude, 1986); CSR as an edge in branding (Lantos, 2001; Lewis, 2003) or a strategy for competitive advantage (Drucker, 1984; Lamberti & Lettieri, 2009; Petrick & Quinn, 2001; Porter & Kramer, 2002) that may even enhance the bottom line (O'Brien, 2001; Van Marrewijk, 2003); corporate citizenship (Altman, 1998; Matten & Crane, 2005; Waddock, 2004; Wood & Lodgson, 2002) or global corporate citizenship (Wood & Lodgson, 2002); corporate social accountability (Göbbels, 2002) and sustainability management (Lindfelt & Törnroos, 2006); the 3Ps triple bottom line including people, profit and planet (Elkington, 1997) that framed the meaning of CSR from the perspectives of financial capital, natural or environmental capital and human capital (Persons, 2012).

As said earlier, there was a growing interest for both business practitioners and academics to gauge CSR output. Thus in the 1980s research continued to investigate how CSR could be translated into corporate social performance (Vogel, 2005; Watrick & Cochran, 1985; Wood, 1991) that could actually impact financial performance (Orlizky, Schmidt & Rynes, 2003). Tools like social and environmental performance standards, reporting standards to audit and assess CSR (Guthrie & Mathews, 1985; Waddock & Graves, 1997) or simply corporate



social reporting (Dierkes & Antal, 1986), were invented. In retrospect, by crystallizing the meaning of CSR, it is then possible to spell out what specific CSR actions businesses can perform. And in turn with these concrete actions in mind, it is then possible to invent means to measure performance in CSR. All these developments in CSR when linked together, have facilitated the phenomenal growth of socially responsible investment (SRI) in recent years.

The idea of SRI appeared as early as the 1960s and 70s that infused social conscience into business investment. Take for example, SRI can mean asset managers should avoid investing in socially harmful business such as gambling, tobacco, nuclear and military weapons (Cochran, 2007). In fact a socially responsible attitude of the investors had played an important role to pressurize South Africa in ending its apartheid government (Sparkes, 2008). SRI eventually led to the birth of some sophisticated SRI stock exchange indices. Since 2006 the SRI indices began to boom with constituent businesses performing competitively. Up to 2011 assets value of SRI in Europe and United States in aggregate amounted at about  $\epsilon$ 7 trillion (Sun, Nagata & Onoda, 2011).

Since the 1950s, CSR has undergone some distinguishable and active stages of developmental growth, from a rather unitary aspiration to maximize profit or just to avoid causing social harms, into now a mainstream business standard and initiatives embraced by contemporary businesses, academia and the general public. It is sought after not just because businesses want to do good socially, but the performance of CSR can actually bring in benefits to businesses and become an image-builder and strategic advantage i.e. doing well by doing good. Frederick (2006) summed up the evolution of CSR as a "large scale social and intellectual upheaval spread over half a century...... In the end, CSR is about more than business. It is about the nourishment of humane values that sustain societies around the



globe." (p. 3). We now see CSR expanding into a web of sophisticated knowledge, concepts and actions commensurate with the needs and uniqueness of specific times. No matter how diverse the development is, it all boils down to a core value and that is a responsible corporation should not maximize profit at all cost, especially at a social cost.

## 2.2 Part 2 of Literature Review - The Pyramid of CSR

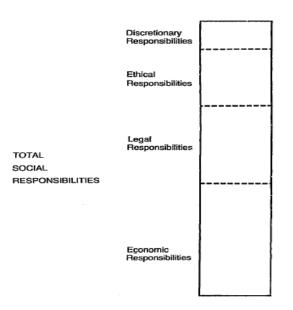
#### 2.2.1 The conceptual framework

Some scholars defined CSR from the angle of how stakeholders are being treated (Smith, 2003); some focused on the kind of CSR actions or behaviours performed (Hopkins, 2012). Others approached the matter by investigating motives of the practitioners to perform CSR (Mintzberg, 1983), so that the defining moments of CSR is based on the intention rather than the action itself. In 1979 A.B. Carroll (1979) developed a conceptual model to address CSP from a motivational perspective with three aspects. Firstly he defined CSR with a framework that has four dimensions, namely Economic, Legal, Ethical and Discretionary. Secondly he enumerated a number of social issues that a business had to tackle such as environmental protection, product safety and occupational safety. Thirdly he highlighted the possible responses of businesses in fulfilling their CSR i.e. reactive, defensive, accommodating and proactive. These three aspects were visualized as a cubic structure that matrixed to each other and generated an array of possible combinations in CSP. He believed that when a business was properly motivated, such motivation would turn into CSR actions eventually. Since the objective of this part of the literature review is to identify a definition of CSR that is



appropriate for this study, the discussion below will concentrate to discuss on one aspect of this bigger model and that is the definition of CSR.

A.B. Carroll (1979) encapsulated the vast and diverse concepts of CSR into four succinct dimensions as shown in Figure 2.2. They are the *Economic* dimension (produce goods and services at a profit) and three *non-economic* dimensions that includes *Legal* (comply with the law), *Ethical* (behave in socially commendable manner that are beyond codified legal requirements) and *Discretionary* which is synonymous to philanthropy (engage in voluntary or charitable activities that is not mandated legally) (pp. 499-500).



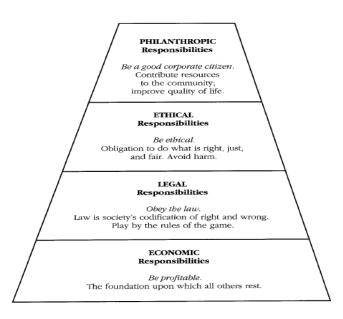
*Figure 2. 2.* Social Responsibility Categories. Adapted from A.B. Carroll (1979, pp. 497-505).

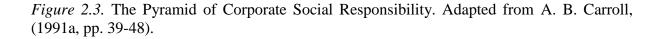
Figure 2.2 seems to suggest there is an order of importance with Economic being the most important, followed by Legal, Ethical and then Discretionary. The four constructs were not mutually exclusive nor did they exist sequentially. That means they could co-exist simultaneously and not necessarily always occurred on a gradual continuum with Economic at on one extreme end and Discretionary at the other. In fact what was being suggested here



was only a classification scheme of CSR or "reasons for actions". He did not intend to "nail down" how far and in what order each type of responsibility had to be fulfilled (A.B. Carroll, 1979, pp. 500-501).

In 1991 A.B. Carroll revisited his own framework from a stakeholders' angle and reexpressed it via a pyramidal depiction and renamed it the Pyramid of CSR (Figure 2.3).



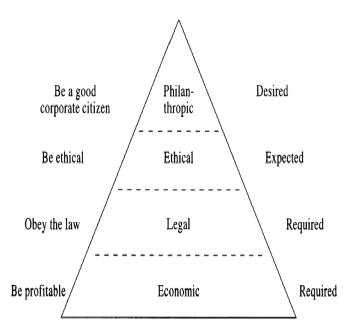


He continued to use the same constructs but this time explicitly mentioned that "all responsibilities are predicated upon the economic responsibility of the firm, because without it the others would become moot considerations." (A.B. Carroll, 1991a, p. 41), that is Economic undergirds the other three CSR dimensions. In another study, Pinkston and A.B. Carroll (1996) investigated the order of priority of the four CSR constructs and further reported a clear pattern of perceived importance with Economic being the first, followed by



Legal, Ethical and then Discretionary. Apparently there was a shift in A.B. Carroll's opinions with regard to the order of importance of these four CSR dimensions.

Schwartz and A.B. Carroll (2003) later on attempted to modify the Pyramid of CSR. They revisited the Pyramid of CSR and gave it an alternate graphical presentation as in Figure 2.4. They pinpointed that Economic and Legal were required CSR; Ethical was something expected; Discretionary was desired and voluntary rather than compulsory. Together the four dimensions covered both the "obligatory" and "voluntary" aspects of CSR.

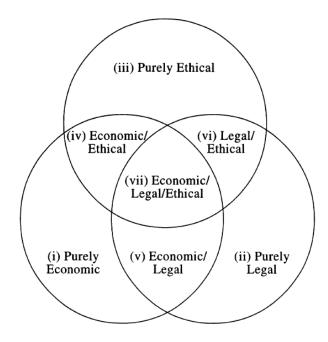


*Figure 2.4.* The Pyramid of Corporate Social Responsibility. M. S. Schwartz, and A. B. Carroll, (2003, pp. 503-530). [This figure was adapted from A. B. Carroll, (1991a, pp. 39-48).]

They then proposed to analyze CSR from a motivational angle and suggested that Philanthropy (Discretionary) could be economic or ethics driven, thus it was actually embedded within these two dimensions rather than as a standalone construct. Moreover management might have multiple intentions when performing CSR, so it is possible for the



four CSR dimensions to overlap with each other. Based on these arguments, they developed a three-domain CSR model in the form of a Venn Diagram eliminating an order of importance among the CSR constructs which is shown in Figure 2.5.



*Figure 2.5.* The Three- Domain Model of Corporate Social Responsibility. Adapted from M. S. Schwartz, and A. B. Carroll (2003, pp. 503-530).

Under the CSR Pyramid, the various CSR dimensions appear in simultaneity and hierarchy, whereas under the Schwartz and A.B. Carroll framework the hierarchical feature is replaced by mutuality with intersecting domains (Geva, 2008). This revised approach by Schwartz and A.B. Carroll (2003) was meant to be an alternative to the CSR Pyramid rather than a replacement, and it had not gone through the extent of empirical tests as the CSR Pyramid model did. Later on other scholars also attempted to modify A.B. Carroll's (1979) model in analyzing corporate responsiveness and outcomes (Watrick & Cochran, 1985; Wood, 1991), but their proposals were still very much based on the CSR Pyramid, acknowledging the four underlying CSR dimensions of Economic, Legal, Ethical and Discretionary.



#### 2.2.2 Limitation of the Pyramid of CSR

Despite its popularity, the CSR Pyramid has limitations. A.B. Carroll acknowledged the shortcomings of this framework that "no metaphor is perfect and the Pyramid of CSR is no exception" (A.B. Carroll & Buchholtz, 2015, p.35). When the CSR Pyramid was introduced, it was largely based on past literature, conceptual reasoning and personal insights, without empirical evidence to support the existence and relationship of the four underlying constructs. Such normative nature of the CSR Pyramid made this concept appear rather speculative. This was rectified later on with the invention of the measurement scale E-CSRO which enabled further testing of the Pyramid of CSR.

The pictorial presentation of A.B. Carroll's model in a pyramidal form (Figure. 2.4) with Philanthropy sitting at the apex could be easily perceived as a higher order CSR dimension, while Economic at the bottom could be regarded as the least important, but in fact it could be just the reverse. The pyramidal depiction itself may also be interpreted as having a fixed hierarchical priority among the four CSR dimensions, whereas prior studies have shown that it is possible for the order to change in different research context.

Also, the Ethical dimension in particular had been criticized by some scholars as being too hazy (Wan, 2006) and blurry (Jamali & Mirshak, 2007). Such criticism is quite understandable, for ethics is about values that emanate from abstract moral philosophies and arguments (A.B. Carroll, 1991a) and A.B. Carroll himself loosely defined ethical as those "that society has expectations of business over and above legal requirements" (A.B. Carroll, 1979, p. 500). This makes the Ethical dimension inherently broad and ill-defined. Last but not the least, over the years other social issues have already emerged as an identifiable aspect of CSR e.g. environmental protection (Elkington, 1997; Visser & Sunter, 2002) is one, but they



are absent from or at least not specifically represented in the CSR Pyramid (Dahlsrud, 2008; Visser, 2005).

### 2.2.3 The rationale of adopting the Pyramid of CSR

Some scholars took a rather uni-dimensional view of CSR and treated it as mainly economicoriented (Henderson, 2004). Others only concentrated on the social aspects of CSR that were beyond the Economic and Legal dimensions (McWilliams & Siegel, 2001). Windsor (2006) offered a balanced view and that CSR concept was in reality full of conflicting forces, e.g. between personal intention, conduct and public policy, between economics and ethics, and he opined that a "satisfactory theoretical synthesis (for CSR) must place profitable business in a moral framework acceptable to utilitarianism-based economics and broader ethical notions of duties, rights, and just consequences" (p. 94). Similarly the CSR Pyramid also managed to encompass a comprehensive gamut of obligations of both economic and non-economic aspects of CSR that could truly reflect real business dilemmas.

Furthermore, though CSR is about social duties of corporations or firms, it is indeed the business owners/executives who are the real drivers behind the performance of CSR. Therefore their attitudes or orientation towards CSR actually govern the extent and mix of social responsibilities taken up by an organization. And the CSRO of a firm is really the CSRO of its people-in-charge who uses limited resources to operate within the interplay of the key CSR domains of Economic, Legal, Ethical and Discretionary dimensions (Wood, 1991). In practice, businessmen are constantly prioritizing CSR options and the fulfilment of each option is probably done at the expense of the others (Jamali & Mirshak, 2007). With



conflicting and complementing CSR juxtaposed under the same conceptual umbrella, the CSR Pyramid actually presented the dilemmas faced by businesses in reality. This crucial feature later on led to the development of a forced-choice or ipsative measurement scale, the E-CSRO, by Aupperle (1982) which allowed respondents to express trade-offs in weighting among different CSR options. Further description about E-CSRO and why it is suitable to be applied in this study is found in Section 2.5 Part 5 of the Literature Review.

Although the Pyramid of CSR is not infallible, it stands out as a simple yet intuitively convincing model. It has translated this abstract notion of CSR into succinct variables that is relevant to real world setting. The popularity of the Pyramid of CSR is reflected by the fact that it has been widely used (Joyner & Payne, 2002), the most cited (Crane & Matten, 2004) and tested model of CSR (A.B. Carroll & Shabana, 2010). Even up to the recent years it "still enjoys considerable popularity among CSP scholars" (Wood, 2009, p. 52). The Pyramid of CSR together with the measurement instrument E-CSRO, have enabled scholars to operationalize empirical research on both CSR and CSRO, as a result accumulation of knowledge in this field became more possible. This is reflected by an impressive list of literature that has adopted and applied the CSR Pyramid and/ the E-CSRO in one way or another. These studies rendered strong empirical evidence to support not only the validity of the Economic, Legal, Ethical and Discretionary as meaningful CSR constructs, but also the robustness of the E-CSRO as a measurement scale to assess CSRO (Aupperle, A.B. Carroll & Hatfield, 1985; Burton & Hegarty, 1999; Boatright, 1993; A.B. Carroll & Buchholtz, 2000; Burton et al., 2000; Edmonson & A.B. Carroll, 1999; Ibrahim & Angelidis 1993, 1994, 1995; O'Neill, Saunders & McCarthy, 1989; Pinkston & A.B. Carroll, 1996; Schwartz & A.B. Carroll, 2003; Smith, Wokutch, Harrington & Dennis, 2001; Spencer & Butler, 1987; Strong & Meyer, 1992; Swanson, 1995, 1999; Watrick & Cochran, 1985; Wood, 1991). In view of



the above reasons, the CSR Pyramid is as an appropriate choice of CSR definitional framework that will guide the overall direction of this study.

### 2.3 Part 3 of Literature Review – Teaching/ learning of CSR and developing CSRO

So far there is only a broad idea to conduct a study on a CSR educational activity in influencing business students' CSRO. Yet how the research question and hypotheses can be phrased in precise terms require further insights to be drawn from literature review. The purpose of Section 2.3 of the literature review is to investigate what studies have been done on CSR education at the tertiary level, so as to identify research gaps in terms of themes and research methods that can further illuminate the development of the thesis. It is anticipated that the literature can touch on one or more of the following areas: the importance of CSR education, business students' CSRO, the teaching and learning methods of CSR or in developing students' CSRO, and CSR education in general.

# 2.3.1 Procedures of the Literature Review

Unlike the literature review in Section 2.1 that follows a chronological approach, Section 2.3 Part 3 of the literature review touches on more diverse topics in CSR education so a more systematic way to uncover and classify literature is necessary. The Evidence for Policy and Practice Information Centre (EPPI) (2007) of the University of London, suggests a procedural framework to conduct literature review that includes the steps to: identify literature source, determine appropriate key words for data search, conduct trial search, refine



search strategy, perform actual search, select relevant literatures, categorize them in meaningful frameworks, extract and summarize key features, analyze and comment on findings. This suggestion of the EPPI is particularly relevant when the topic area for literature search is rather broad. Ertl et al. (2008) also conducted a very systematic and thorough literature review on the higher education sector in the United Kingdom which encompassed a diversified range of topics. The literature review procedures and approaches used by these two sources were especially relevant because in this case there is a need to draw meaningful findings from a rather wide scope of literature. In view of this, steps being taken to conduct this part of the literature review were mainly referenced with the systematic review practices established by EPPI (2007), the literature review procedures used by Ert et al. (2008) together with a study by Wallace and Poulson (2003).

By nature the topic of CSR education is cross-disciplinary that can span across the education, business and applied social sciences fields. Henceforth databases that cover these academic domains should be used for the literature search. The Proquest platform that linked up 5 databases in one go including: Education Resources Information Center (ERIC via Proquest 1966+), ABI/Inform (1971+), PsycInfo (1806+), Sociological Abstracts (1957+), Proquest Dissertations and Theses A& (1639+), appeared relevant and was used to elicit literature. The search only covered published documents dated 1/1/1990 or after; document types covered articles from academic journals, books, book chapters, book reviews, conference papers and proceedings, dissertation and theses, government and industry reports.

After a number of trial search by using different combinations of the key words, it was decided to use the key words: student\* AND corporate social responsibilit\* to extract writings. 149 writings were returned and their abstracts were reviewed so as to decide on



their inclusion or exclusion for the literature review. During the process if in any doubt, the full text was examined before a decision was made. Eventually 79 papers were found likely to be relevant to this study.

All selected literature were then coded and classified into an analytical matrix according to their research methods and themes. Definitions of the research method were largely adapted from the work of Ertl et al. (2008) with some slight fine-tuning, so as to derive a grouping matrix that can better suit the profiles of the selected literature. Terminologies of the research methods are elaborated below.

# • Review

Studies that aim to draw together information, findings and conclusions from a range of previous reports.

# • Descriptive

Studies that summarize a state of affairs or phenomenon, or to document its characteristics. This category includes both descriptive/quantitative i.e. those that use some kind of questionnaires for an opinion poll and presenting descriptive statistics; and descriptive/qualitative i.e. those that report in literary form without any supporting empirical data.

### • Evaluation

Studies that evaluate a practice, programme or other intervention by assessing how it works.

# Experimental



Studies that measure the causal effect of a researcher-manipulated independent variable (such as a CSR programme or teaching method) on a dependent variable (such as CSRO scores).

#### Action research

Small scale studies implemented by a member/ members of one program/course at a single institution over a shorter time span, and could be supported by qualitative or quantitative methods or both (Cohen, Manion & Morrison, 2011). Action research is participatory and collaborative by nature that usually has an applied focus in a social situation with an aim to improve practices or seek for a solution to resolve a problem within that specific context (Kemmis & McTaggart, 2014). As purported by Gay, Mills and Airasian (2006) there should be a dialectic action research spiral that includes: identifying area of focus, data collection, data analysis and action planning. And according to Hult, Leunnung, and Elliot (as cited in Ertl et al., 2008, p. 39) to classify a study as action research, it should demonstrate that it has followed some activity structure that typically includes developing an intervention, implementing it, assessing it, improving and even implementing a redesigned intervention.

### • Case study

Studies that perform more in-depth inquiries of real-life conditions e.g. a real person, group, institution, community or event (Gay, et al., 2006). Though this group of studies tends to be more interpretive and constructivist, case study can be supported by multiple sources of data including quantitative data and established theories when unfolding the social dynamics of the case situation.

#### Inventory-based

Studies in this form typically involve self-completed questionnaire survey in which



respondents rate themselves on a list of items that connote aspects of human values. It enables trait analysis in greater details (Cheng & Fleischmann, 2010). They are segregated into a distinct group of studies because they allow more sophisticated analysis on characteristics of the participants of the study. This method should be distinguished from a simple yes/no opinion poll survey, and the latter should be included under the category of descriptive/quantitative.

When more than one research method was being employed in the same study, judgment was exercised to decide on the overriding method. For example when a survey is used as a tool to assist another observation like action research or experimental activity, they will be grouped under action research or experimental accordingly.

The selected papers were further classified according to three thematic areas. First, were those that assessed the students' existing attitudes/orientations /perceptions towards CSR i.e. CSRO. Second, those that had reported specific means in the teaching or learning of CSR, or in developing CSRO of the students, that could be a one-off educational activity or a course of longer duration as part of the formal curriculum. Third, writings on CSR educational trends in general. Even though papers that fell on the third regime might not seem to be directly relevant to the topic of this study, they were still included in the literature review because of their potential to bring in heuristic value. Altogether 66 out of 79 writings were found to be relevant and they were categorized by themes and by research methods as shown in Table 2.1.

### *Table 2.1.*

Classification of Selected Literature by Themes and Research Methods



Themes	Assess or measure students'	Learn/teach CSR	CSR Education in	Total
Methods	attitude/perception/ orientation	and/or develop	general and others	
	towards CSR	CSRO of students		
Review		4	5	9
Evaluation	1		3	4
Inventory-based	28			28
Action research		5		5
Case study	1	6		7
Descriptive/quantitative	3		2	5
Descriptive/qualitative	2	1		3
Experimental		4		4
Mixed methods		1		1
Total	35	21	10	66

Out of these 66 writings, 47 used some kind of student samples, 34 used business student samples; 8 used both business and non-business student samples; 5 only used non-business student samples. Since the majority of these studies used business student samples, the conclusion to be drawn from this literature review should have meaningful implications for business students and business education.

As pointed out in the beginning of this Section, so far the area of this study is broadly conceived as a CSR teaching/learning activity in changing business students' CSRO, details as to how to operationalize this study is still uncertain. Therefore, instead of summarizing key findings from some relevant literature as supporting evidence to justify a pre-determined research topic; the approach used to conduct this part of the literature was to identify the thematic and methodical research gaps from a diverse range of CSR education literature, so as to facilitate formulation of the research topic and the hypotheses. A preview of the structure of the entire Section 2.3 is presented in Figure 2.6.



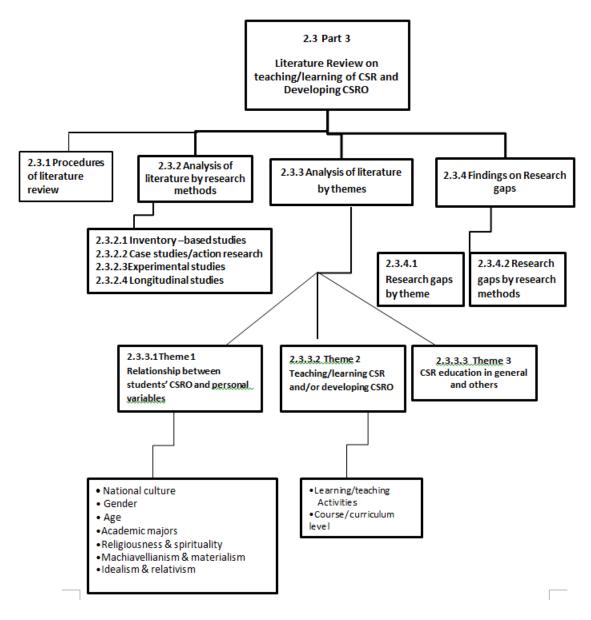


Figure 2. 6 Structure of Section 2.3 Part 3 Literature Review

# 2.3.2 Analysis of literature by research methods

# 2.3.2.1 Inventory-based studies

More than one third of the papers were inventory-based. Inventory type studies enable more sophisticated statistical comparisons, making it a suitable option to examine CSRO in the



light of other personal attributes. The inventory-based studies selected were mainly exploratory with cross sectional design, examining snap-shots of issues. Studies using more stringent methodological design with greater statistical insights in correlational or causal-comparisons across variables can be found in this genre of research as well. On the downside, some of the studies in this group used purposive or convenience sampling and many others simply remain silent or ambiguous as to how samples were recruited. One that mentioned randomization actually assigned the conveniently recruited samples to sub groups at random only. In fact out of all the quantitative studies, only two explicitly claimed to use random sampling (Chen, Mujtaba & Heron, 2011; Vong, 2010).

#### 2.3.2.2 Case studies/action research

Although case studies and action research are two different kinds of research methods, to some extent they do have some similarities e.g. they usually are smaller scale studies using convenience sampling in a single entity, implementing a particular event/pedagogy/learning activity at a class/course level, and more often both adopt a constructivist approach in analyzing their propositions.

The better writings from this group have a developmental or problem-solving objective that spelt out the research and data collection process (Bos, Shami & Naab, 2006; García-Rosell, 2012; Moratis, Hoff & Reul, 2006). Others were prone to be anecdotal and impressionistic that only described the process of a particular teaching/learning activity. For those that had disclosed the content of the questionnaire used to collect data, it was noted mainly single dimensional scales were used. When all action research (5 papers) and case studies (7 papers)



were combined they took up more than half of the total number of literature selected under the theme of teach/learn/develop CSRO. Nevertheless, the rather diverse research topics conducted by case study and action research together with the relatively weaker research designs found in this group of writings make it a challenge to draw representative conclusions from their findings.

#### 2.3.2.3 Experimental studies

A few studies used some form of experimental design and administered treatment with pre/post-test scores measured to assess CSRO changes. Most are lack of the RCT (randomized controlled trial) features, so rendered them not truly experimental. Elias (2004) exposed students (first round N=466, second round N=324) to some major corporate bankruptcy news. The cross-cultural study by Kim and Choi (2012) studied student samples from the United States (N=367) and South Korea (N=324). Each group was further subdivided into two smaller groups, and each group was exposed to either a tobacco-related or non-tobacco related news about Philip Morris, with between subjects' comparisons on their perception towards CSR and corporate effectiveness. The intervention by McGlone, Spain and McGlone (2011) (N=259) was a more substantial one day activity-packed ethics course that measures the pre-post CSRO scores of students. The experiment by Assudani, Chinta and Burns (2011) spanned over two semesters. Students who had enrolled in the Principles of Management course in the first semester were the control group (N=39) and those enrolled in the second semester (N=54) were the treatment group. In the first semester control group less emphasis was placed on BE/CSR in the teaching materials and assessment. While more intense focus was deliberately placed in the second semester treatment group.



Results did not show any significant differences between the two groups that have different levels of exposure to ethical decision making theories.

# 2.3.2.4 Longitudinal studies

Only one study by Elias (2004) was experimental by nature and also claimed to have a longitudinal design. It measured pre/post-test of CSRO score over a one year time lapse. Perhaps it is worth noting that Burton and Hegarty's (1999) initial study on US students' CSRO, later on was extended into a cross-cultural comparison between US and Hong Kong students (Burton et al., 2000). Similarly, Anglidis and Ibrahim's (2004) investigation into students' CSRO in relation to religiousness was repeated a few years afterwards (Ibrahim, Howard & Angelidis, 2008). Another one also by Ibrahim and Anglidis's (1993) on CSRO differences between business students and business executives was again replicated on accounting students and practitioners (Ibrahim, Angelidis & Howard, 2006). Though strictly speaking these are cumulative studies rather than longitudinal, by clustering their work in like domains, they did contribute to our overall understanding of students' CSRO.

#### **2.3.3** Analysis of literature by themes

### 2.3.3.1 Theme 1 – relationship of students' CSRO to personal variables

The papers that are grouped under this theme either examine the existing CSRO in relation to the demographic variables of gender, national culture background, age group, academic majors; or CSRO in relation to personal value-based attributes of idealism and relativism,



Machiavellianism, materialism, religiosity or spirituality. Some notable research outputs in these respects are summarized below.

#### National culture

According to Jones (1999) CSR is national culture bound. This view is supported by other scholars (Diaz-Fernandez, Pawlak & Simonetti, 2013; Gonzalez-Rodriguez, Jamali & Mirshak, 2007). Mascolo, Misra and Rapisardi (as cited in Wong, Long & Elankumaran, 2010, p. 300) opined that to people of certain national cultural background, social responsibility is mandatory rather than optional. For example Indian students in general treat social responsibilities (SR) as some kind of religious duties, something they can easily connect with their cultural bondage (Wong, Long & Elankumaran, 2010). Uruguay students focused more on employees as internal stakeholders and consumers/suppliers as external stakeholder, but perceived a lower importance of CSR with the distal stakeholders i.e. the community at large (Vázquez, Lanero & Licandro, 2013). Students who come from a welfare state background like Finland are more inclined to take a stakeholder stance when they look at CSR (Lämsä, Vehkaperä, Puttonen & Pesonen, 2008). And Visser (2005) pointed out that the relative importance of the four CSRO of Economic, Legal, Ethical and Discretionary might not be universal in the eyes of different groups of people.

The Chinese group stands out as a more pragmatic group with higher regard for the economic dimension of CSR (Wong et al., 2010). Burton et al. (2000) investigated CSRO of university students in the United States and Hong Kong, revealed that the Hong Kong group considered economic responsibilities more important over the non-economic ones when compared to their United States counterparts. When compared with the Indian group, Chinese business students also showed a stronger inclination to emphasize economic performance of



businesses over the non-economic aspects (Wong et al., 2010).

Students of the United States tend to be more critical in assessing motives and values of CSR programs than South Korean students (Kim & Choi, 2012). They are more emphatic in fulfilling legal obligations than the Chinese and Indians students (Wong et al., 2010). Fitzpatrick and Cheng (2014) supported business undergraduates in the United States were more sensitive to CSR than the Hong Kong Chinese counterparts. These evidence seems to converge with the view that CSRO is somehow national culture bound. Yet a word of caution is since the samples' profiles between nations may not be entirely matching hence comparability of the outcomes has to be treated with care.

### • Gender

Some literature indicated females in general put more weight on ethicality. Females have been found to be more CSR sensitive or sympathetic than males (Alonso-Almeida, Fernandez & Rodriguez-Pomeda, 2015; Arlow, 1991; Burton & Hegarty,1999; Fitzpatrick, 2013; Fitzpatrick & Cheng, 2014; Ford & Richardson, 1994; Gonzalez-Rodriguez et al. 2013; Kraft & Singhapakdi, 1995; Lämsä, Vehkaperä, Puttonen & Pesonen, 2008). They also seem to attach more importance to the CSR reputation of a potential employer in the process of job hunting (Leveson & Joiner, 2014) and are more inclined to support ethical products as consumers when compared with their male counterparts (Arli, Bucic, Harris & Lasmono, 2014). A literature summary by Borkowski and Ugras on gender and ethicality (as cited in Elias 2004, p. 270) concluded that females judge ethical infractions more harshly than males; they are more concerned about SR/CSR and more likely to be ethical. So in some instances it is found gender as a variable can influence CSRO.



### • Age

More often age is analyzed as a control variable in the selected studies and less as an independent variable in relation to CSRO. Elias (2004) reported that younger students (below 25) were more sensitive to the perception and importance of social responsibility. Two studies (Ibrahim & Angelidis, 1993; Ibrahim, Angelidis & Howard, 2006) have conducted serial but independent comparisons on CSRO in relation to age by examining CSRO differences between students (younger group) and business practitioners (older group). It was found students exhibited greater concern about ethical standards and less so for economic performance when compared with the executive group (Ibrahim & Angelidis, 1993). In 2006 Ibrahim et al. compared CSRO between accounting students and accounting practitioners. Likewise students were found more ethically and philanthropically oriented, while the executives were more economically-driven. Yet there seemed to be a tendency that the ethical values of students deteriorated as they progressed to senior years (Wang & Juslin, 2012). Alonso-Almeida et al. (2015) found that second and third years students were less inclined to maximize value for shareholders when compared with Year 1 students. Intriguingly Fitzpatrick (2013) found students with more work experience hence usually older students, were more concerned about CSR. Perhaps it was the work experience rather than age per se that caused the difference. Overall, there is evidence suggesting that when people grow older they may have less concern for the non-economic issues of CSR or even become less ethically sensitive.

#### • Academic majors

Different business programmes tend to attract students of certain attributes (Coate & Frey, 2000). Hence academic discipline can be a moderating variable to influence one's CSRO (Leveson & Joiner, 2014). Jeffery (1993) discovered that accounting major students exhibited



higher levels of ethical awareness when compared to the non-accounting students. Yet Sautter, Littvay, Sautter and Bearnes (2008) found accounting and finance students were more narcissistic and less empathetic. With regard to students' sensitivity to SR, Elias (2004) posited that students in accounting/marketing/management majors were more sensitive to SR when compared with those who majored in finance and economics. Wang and Juslin (2012) studied a mix of students and found that those from the ecology stream were most skeptical on CSR performance of businesses. From these instances, academic major appeared as a likely variable that could influence students' perceptions of BE and their CSRO. Nevertheless in view of the large range of business programmes available, it would be hard to come to any decisive conclusion of both statistical and practical significance that could explain the relationship between business disciplines and CSRO. More comprehensive investigations with stronger evidence are needed before any clear statements can be made about the relationship between academic majors and the students CSRO.

Besides, a number of studies examined CSRO in relation to certain demographic variables and moral values/ethical perception. The more distinctive findings are highlighted below.

# • **Religiosity**

The literature summary by Ibrahim et al. (2008) showed that there were divided views as to whether religiosity is a predictor of students' ethical behavior. The study by Kolodinsky, Madden, Zisk and Henkel (2010) could not find evidence to support a significant relationship between the dimension of religiosity and a person's CSRO. Other studies, however, found students with a religious background seemed to place greater emphasis on ethical issues than on economic matters (Anglidis & Ibrahim, 2004; Ibrahim et al., 2008). In general, religiousness appeared to show a significant difference over a person's perceptions and



decisions on ethical issues and perhaps consequently the ethical behavior (Hunt & Vitell, 1986; Singhapakdi, Marta, Rallapalli & Rao, 2000). Some studies opted for the term spirituality instead of religiosity. Tandon, Mishra and Singh (2011) regarded spiritual persons were more likely to engage in CSR activity i.e. positively related. Fitzpatrick (2013), Fitzpatrick and Cheng (2014) used "faithfulness in God" and "I have faith in God" as a measure for spirituality; they also found a person's spirituality has significant influence on CSRO. Religions advocate a value system, and a truly religious person supposedly are dedicated to uphold the very set of values that they believe in. Such ingrained moral standards, are likely to have discrete influence over one's ethical choice and implicitly their CSRO.

# • Machiavellianism

According to Christie and Geis (1970) a 'high Mach' person is portrayed as being strategic and manipulative in human relationships, taking on a very pragmatic world view and treating other's rights as secondary to their own interests. With increasing level of Machiavellianism, the relative importance of the economic dimension of CSR rose while the relative importance of the non-economic responsibilities declined (Burton & Hegarty, 1999; Tandon et al., 2011).

#### Idealism, Relativism, Materialism

In Forsyth's (1980) study, idealism and relativism represented two rather polarized dimensions of moral values. In one extreme, idealists are those who only take actions that will not harm the others; on the other extreme relativists reject absolute moral principles when making ethical decisions and act according to their personal interest. There is evidence to support ethics and corporate social responsibilities are positively related to idealism and



negatively related to relativism (Chen et al., 2011; Koldinsky et al., 2010; Tandon et al., 2011).

# 2.3.3.2 Theme 2 – teaching/learning of CSR and/or developing CSRO

### • Learning and/or teaching activities

Owing to the versatile nature of CSR, we would expect to find from the literature a large variety of methods in the teaching/learning of CSR and developing students' CSRO. On the contrary, only limited kinds of educational activities were identified. Case studies, written assignments or projects based on real life cases are the commonly used methods. There are a few studies that adopt more innovative and experiential based activities. Chang, Chen, Wang, Chen, and Liao (2014) reported a service learning project for engineering students to participate in restoring used computers before donating to NGOs. Even though service learning provides excellent in-depth learning experience and can promote lifelong civic engagement (Claus & Ogden, 2004), the descriptive and anecdotal type of the research method employed by Chang et al. (2014) renders the effectiveness of the learning project inconclusive.

The two action research by Bos et al. (2006) and Moratis et al. (2006) deserve further elaborations. Both of them used simulation games as a learning activity. They exposed students to ethical dilemmas that simulated some real world setting via a computer-based platform. Bos et al. (2006) asked different groups of students to play the roles of business, government and the media respectively, and their decisions with justifications were analyzed. Moratis et al. (2006) used a sustainability and integrity game in which students simulated the roles of the board of directors to resolve different ethical issues. The activity was followed by



individual reflection and a team essay-writing, wrapped up by an analysis of the students' feedback.

By approximating some dynamics of the real world, simulation role-play creates a rather riskfree intellectual space where students are given firsthand experience, forming personal insights to construct knowledge and building up competencies. In both studies by Bos et al. (2006) and Moratis et al. (2006), very positive comments were received from students who regarded the learning experience as refreshing and thought-provoking. Such a kind of learning activity, however, is not without limitation. The foremost is the need to devise assessment rubrics that are appropriate for this kind of assignment. Secondly, the learning process can be tarnished by uncommitted free-riders, and some students may tend to make socially desirable decisions thus diminishing the effectiveness of the activity (Moratis et al., 2006).

# • Course/curriculum level

Several studies attempted to propose a CSR course of longer duration or a semester long module within the curriculum, but most of them did not test the effectiveness of their suggestion. Studies under this category are mainly descriptive that weakens their generalizability. Nonetheless they suggest some useful pedagogical means that are worth examining.

DesJardins and Diedrich (2003) presented a rather detailed account in teaching BE/CSR. They required students to search for materials and write up business cases on the topic of product life cycle from a CSR viewpoint. Jallow (2009) outlined a whole module that focused on the environmental and sustainability aspects of CSR. Holland (2004) described the design



and operation of a 12 week CSR module that linked the subject of accounting to the notion of accountability for final year business students. Persons (2012) created a more substantial curriculum by embedding the elements of CSR/BE into an undergraduate course with 4 assignments, a project, 7 ethics cases and 17 ethics scenarios. García-Rosell (2013) employed a problem-based and discursive approach in two CSR postgraduate courses that promoted students to acquaint and reconstruct their own social meaning of CSR. Tokarcíková, Kucharcíková, and Durisová, (2015) suggested using a combination of teaching methods for a CSR elective course over two semesters, including writing CSR blogs, case studies, experiential game to apply their knowledge, and forming community circles to work on a CSR project. Perhaps Kleinrichert et al. (2013) is a rare example that actually used pre and post-tests scores to evaluate the effectiveness of their business and society course in terms of students' changes in CSRO. Statistically it was found that the course has significant and positive impacts on students' support for certain non-economic aspects of CSR, even though the authors suggested that such difference might have been moderated by other confounding variable such as students' extra-curricular experience of CSR. In fact it is hard to find from the literature systematic investigations on the effectiveness of semester-long CSR course, and there are certainly research gaps in testing for the effectiveness of their content and structural design.

# 2.3.3.3 Theme 3- CSR education in general and others

After witnessing a number of gigantic corporate failures and financial scandals in 2003, the AACSB took a firmer lead in requiring business schools to foster the topics of BE and CSR in their programs (AACSB, 2004). Escudero (2009), a special adviser to a United Nations initiative the Global Compact, pointed out that major accreditation bodies of business



programs including the Latin American Council of Business Schools, Central and East European Management Development Association (CEEMAN), the European Foundation for Management Development (EFMD) and Aspen Institute and the European Academy for Business and Society, all responded positively to a UN's initiative called the Principles of Responsible Management Education (PRME). The PRME proposed the teaching and learning of CSR as a key component in business education. It advocated reform from education philosophy to curriculum and pedagogies, with the ultimate aim to develop students of stronger ethicality and more positive CSRO. Up to now CSR or BE education has not yet been universally required. Nevertheless, these major accreditation bodies around the world are putting more pressure on business schools to push CSR/BE education higher up on their educational agenda.

# 2.3.4 Findings on Part 3 Literature Review - Research gaps

Section 2.3 of the literature review has revealed some research gaps, both thematically and methodically. Overall, there is an overwhelmingly clear message that we need to cultivate a new genre of business students to be more ethical and socially responsible. Changes are already happening, for we see more and more business schools have incorporated elements of BE/CSR in their curriculum with different levels in breadth and depth. Whether these educational endeavours are effective or not remain to be further confirmed. Before this can be done, it remains doubtful as to whether business schools actually succeed in nurturing more ethical business students.



## 2.3.4.1 Research gaps by themes

Theme-wise the number of studies that explained why CSR education was needed far exceeded those that explored the teaching and learning methods of CSR and/or the development of CSRO. The two papers by Burton et al. (2000) and Fitzpatrick and Cheng (2014), only examined the CSRO of Hong Kong Chinese business students without implementing any kind of educational activities for the development of CSRO. Seemingly academia was more interested in telling *why* we need to teach CSR than probing into *how* to achieve this, hence leaving a research gap here. Some teaching/learning methods on CSR or developing CSRO were found e.g. case study with a student-centered approach (DesJardins & Diedrich, 2003), service learning (Chang et al., 2014), simulation games (Bos et al., 2006; Moratis et al., 2006), or the more substantial modules or a CSR day-long activities/course (Jallow, 2009; Holland 2004; McGlone et al., 2011; Persons, 2012; Tokarcíková et al., 2015) that used a combination of methods. Overall, only a limited range of teaching/learning practices are identified with limited number of supporting literature for each kind of method.

Moreover, findings indicate there are possible influences from certain personal attributes of CSRO with the more notable ones including national culture, gender, academic majors and religiosity. If more solid data are found to substantiate the relationship between any of these personal variables and CSRO, then CSR education can be applied with stronger confidence to the target group and generate higher impact outcomes. For example if it is academically proven that senior year male students from the stream of finance may appear to have a stronger need for CSR education, then priority treatment and resources can be diverted towards this specific group.



# 2.3.4.2 Research gaps by research methods

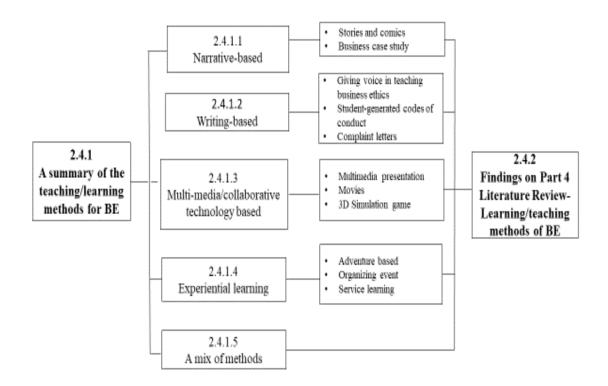
Most of the studies that had used certain means to teach CSR or develop students' CSRO reported very positive feedback with students becoming more sensitive and supportive of CSR. The vast majority, however, are either in case study or action research modes that are lack of more robust empirical evidence to support their claims. As pointed out by Fernandez and Sanjuan (2010) that BE course did not guarantee ethical behavior, and it is important to make sure such courses are impactful. For example both of the role-simulation computer games (Bos et al., 2006; Moratis et al., 2006) that received very positive students' feedback in the learning and teaching of CSR could in fact be substantiated by further statistical testing. Even though these studies did enlighten our understanding on CSR education, they only offered limited answer as to how we could effectively influence students' CSRO. A few actually tested pre-post difference of students' CSRO changes after going through some intervention (Assudani et al., 2011; Elias, 2004; Kleinrichert et al., 2013; McGlone et al., 2011). Yet not all of the studies that had implemented some kind of learning activities and had the effectiveness of their methods tested by more robust statistical methods. In sum, methodically there is a clear shortage in experimental studies that can offer more statistical rigor in understanding the effectiveness of CSR educational activities. Last but not the least, longitudinal designs are basically rare. It would be interesting to keep on tracking students' changes in CSRO after graduation and even after they have embarked on their career in the business field.

#### 2.4 Part 4 of Literature Review - Teaching/learning methods of business ethics



Section 2.3 gave us a preliminary understanding as to where the research gaps lie by research theme and methods in the areas of CSR education. Despite the quest for diversified means to deliver teaching on CSR (Wang & Juslin, 2012), only a limited number of teaching/learning methods were identified. Since the search parameter of Section 2.3 is drawn around literature on CSR education only, hence another round of literature search is performed under Section 2.4 to look for good learning and teaching practices in the field of BE. This Section is Part 4 of the Literature Review that solely focused on studies about the teaching/learning methods of BE. Literature being extracted for this part of the literature review can be broadly grouped into narrative-based, writing-based, multi-media/collaborative technology based and experiential. Some studies described only one kind of activity while some used a combination of methods. For the sake of analysis, they were categorized according to where the emphases were placed. For example case study is basically grouped under narrative-based because it commonly relies on verbal narration of a case scenario, whether real or hypothetical, but it does not preclude the use of other means such as report writing as a secondary means to deliver the learning outputs. For those that did not overly rely on one particular kind of method but had attached more or less equal importance to several means, they were grouped under a mix of methods.





*Figure 2. 7* Structure of Section 2.4.1 A Summary of the Teaching/Learning Methods for Business Ethics

# 2.4.1 A summary of the teaching/learning methods for BE

# 2.4.1.1 Narrative-based method

# • Stories and comics

Comic book is a legitimate pedagogical tool, not only in BE education but also in other academic disciplines (Hall & Lucal, 1999; Kakalios, 2006). Comics as a visual language can create powerful impact on college students (Watson, 2003) the comic characters are full of contrasting values in justice and fairness that have universal appeal and can transcend



geographical and cultural barriers (Gerde & Foster, 2008). Stories of inspiring moral leaders and noble characters have strong emotional appeal that philosophical arguments or pure theories generally lack. As such comics provide a platform for students to discuss and reflect on ethical reasoning, or even self-identify with the characters.

# • Business case study

Introduced by the Harvard Business School in the 1950s, the case study method continued to be an effective way in connecting the classroom to the real world. This is valuable not only to students who do not have sufficient life exposure to comprehend the complexity of business situations, but also beneficial to teachers as a resource effective platform to introduce the business realm within a compressed time frame. The skills and capabilities that students can develop through case analysis have transferrable values to real life situations (McWilliams & Nahavandi, 2006; Falkenberg & Woiceshyn, 2008).

Under case study, there are variations as to how this can be carried out. Typically students worked in small groups, chose their own case, conducted fact-finding and analysis, wrote up their report and ended with a student-led discussion (Cahn & Glass, 2011). Sometimes students may be required to grade their peer groups' analysis with justifications (Jones, 2009); or the discussion part can be turned into an open floor debate (McWilliams & Nahavandi, 2006). Another stream use a stronger student-centred approach that require students to construct their own case materials (Plewa & Quester, 2006) which come from students' personal experience of ethical issues or dilemmas encountered in the workplace (Laditka & Houck, 2006; Poulton, 2009). In order to expose students to ethical reasoning more systematically, Singer (2013) required students to analyze a business case from an analytical framework with a binary moral view component i.e. justice vs pragmatism, and



propose a resolution. Regardless of the steps and approaches taken, case study is a widely popular method used.

# 2.4.1.2 Writing-based method

Some studies relied more on writing as a learning output. Through writing, students could have more time to precipitate and organize their thoughts, eventually produce tangible outcomes that could benefit their overall understanding of BE (Wilhelm, 2008).

# • Giving voice in teaching business values

Proposed by Gentiles (2010) the Giving Voice to Values (GVV) is a value-based teaching method that has been used by scholars for different purposes (Chappell & Edwards, 2011; Drumwright, 2011; Shapiro, 2011; Trefalt, 2011). Among the GVV teaching materials there was a writing exercise called a "Tale of Two Stories" that had relevance to BE education. Students were asked to recall two incidents, a time in work that personal values conflicted with management values and that the student spoke about their own views and resolved the matter; and a time that the student did not speak up to resolve the matter immediately (Adkins, 2011). Through reflecting upon their past experience and the decisions made at that time, students could carefully identify situational enablers and disablers, such as organizational culture, their superior's work style or even the vulnerability of their own employment situation, and rationalized why they chose to react the way they did. Students were then required to ask "what would I say and do now if I were going to act on my values?" They have to write up their decision if they were in the same situation now. This



exercise of self-examination challenged students how to react to ethical dilemma and allowed them to re-invent their own ethical decisions.

# Student-generated codes of conduct

Buff and Yonkers (2005) asked students to reflect on their own roles in class within their unique social milieu and to generate their classroom codes of conduct. Participants have to sign on the codes to indicate acceptance, and such codes are then used as a guiding principle of their behavior within the designated group for project works in the upcoming semester. If there were any dysfunctional behaviours from its members, students were expected to resort to the codes for resolution or even sanction.

### Complaint letters

Using real life experience, students were asked to recollect and write up a complaint letter to an institution that has treated them unethically in the past (Jurkiewicz, Giacalone & Knouse, 2004). The letters were then sent out to the organization concerned. Students would discuss their case in class and even any subsequent response from the institutions. Such responses could be confronting to their ethical position or could be an offer to resolve a dispute. What students could see how corporate codes of conducts were actually put into practice, and that they could actually be empowered to articulate unethical issues.

#### 2.4.1.3 Multi-media/collaborative technology based

Multimedia aids are some light-hearted and appealing devices that can connect students to serious topics and is much welcomed by this technology savvy generation (Yaverbaum,



Kulkarni & Wood, 1997). Collaborative technology allows instant sharing and socializing by texting and posting of photos or videos. The two together become a new modality of learning aid that better appeals to the millennials.

#### Multimedia presentation

Smith, Smith and Mulig (2005), Stanwick (2010), compiled presentations of business cases through the media of pictures, videos, music and audios that facilitated discussion on BE issues. Both studies positively provoked the thoughts of students on issues concerning BE and positively impacted their perception on the topic. Kwak and Price, (2012) assigned students to prepare their artifacts on the topic of socially responsible business. Students' works were uploaded to the internet and became an educational tool to their fellow peers. The whole process was interactive and applied a student-peer teaching approach. Revoir (2014) required students to create a business ethics scenario in group, wrote up the dialogue, played the characters, and suggested how to resolve the ethical dilemmas. They shot the acts, uploaded to YouTube, watched the videos together or at their own pace and frequencies, and then analyzed each act with ethical theories in class or by posting comments on-line. By watching their own and other's roles played on screen, this could deepen and promote students' thinking.

#### Movies

Bay and Felton (2012) used movies as teaching material with a group of accounting students to explore the topics of corporate governance, internal control and BE. Cox, Friedman and Edwards (2009) used the movie "Enron: the smartest guy in the room" to teach organizational ethics. Biktimirov and Cyr (2013) showed the movie "Inside job" which used the Lehmann Brother financial saga to illustrate how a series of white-collar crimes could involve duties



and responsibilities of financial institutions, regulatory bodies, credit agencies, consulting firms and academia.

### • 3D simulation game

Jagger, Siala and Sloan (2015) converted a marketing ethics case exercise into a 3D immersive game by which students could look at the issue from the eyes of the main character and were prompted to make ethical decisions. The process concretized and personalized the learning experience and was found to be an effective pedagogy, and the game element in particular engaged students in the learning of BE.

# 2.4.1.4 Experiential learning

Experiential type of learning as a kind of deep learning experience (A. Kolb & D. Kolb, 2005) can have positive impact in raising ethical awareness and value transformation (Sims & Felton Jr., 2005), and it is found to be beneficial in the learning of BE. By placing learners in an authentic work environment, the real world was turned into the classroom where students were in control of their own learning process. Through interaction in a genuine work context, students were compelled to make sense out of their encounters and intensify their needs to translate theories into practice. All these are hard to achieve in a sheltered environment like the classroom (Lampe, 1997). Several forms of experiential learning were identified from the literature.

#### Adventure based



Godsey (2007) used outdoor adventure games as a form of experiential learning in BE. The games were designed in such a way that they aligned with the topic of BE. Students could reflect, construct and share knowledge from their first-hand experience and such experiences created enduring impact on the participants that might give them a greater chance to foster their moral behaviour in the future.

#### • Organizing BE event

In a study by Rajeev (2012), students were given the chance to go through all the entries to the Mother Teresa Awards for Corporate Citizen where the candidates are public listed companies. Students acted as moot juries and made their own recommendations to the award panel for the final decisions. They then joined an essay competition on BE and assisted in the organization of an annual business ethics conference. Throughout the process they are also asked to examine their own ethical norms in the light of this societal context.

# • Service learning

Kendall (1990) defined service learning as "(to perform) needed tasks in the community with intentional learning goals and with conscious reflection and critical analysis"(p.20). It can be a voluntary community service work in the neighbourhood or to plan for a related task. The benefits of service learning to positively impact cognitive and moral development are evident (Boss, 1994; Cohen & Kinsey, 1994). In fact service learning is regarded as a discrete and legitimate learning tool for a variety of academic discipline (Kenworthy-u'ren,2008) including the business disciplines (Godfrey,1999; Seider, Gillmor & Rabinowicz,2011; Zlotkowski,1996).

Hazen, Cavanagh and Bossman (2004) required MBA students to take up ten hours of



community service work during the semester. Debeljuh and Destefano (2005) described two 4-months' programs where students had to perform voluntary services for some NGOs. Flannery and Pragman (2008) arranged students to work for a campus kitchen program to recover surplus food and deliver meals weekly to the needy persons, plus managing the kitchen themselves. For service learning experience to be successful, Kolenko, Porter, Wheatley and Colby, (1996) suggested there should be elements of reality, reflection and reciprocity. Among which critical self-evaluation is an important step to develop students (Wittmer, 2004). Apparently service learning type of pedagogy is much more resource taxing when compared with the other learning means. This may explain even though the merit of service learning is evident, only a few studies had resorted to such a learning method.

### 2.4.1.5 A mix of methods

In fact many of the selected studies used more than one method to accomplish their teaching and learning goals, but only those that put a more balanced emphasis on the different methods were grouped under this mix of methods category. Spain, Engle and Thompson (2005) experimented with an Ethics Awareness Week in which they used a series of activities including case study, lectures, assignment, and ended with a debate to engage both students and teachers. Cassidy (2006) first used lectures to inform students of the philosophical issues, students and teachers then jointly interpreted and evaluated a particular text on BE bringing out a collaborative learning experience. Finally the course was wrapped up with a service learning experience called "Street Retreat" that engaged students for a one day practicum at a local NGO to serve the poor of the local community. After that students made recommendations to improve the situation.



Goby and Nickerson (2012) also experimented with a series of assignments to a group of undergraduate business students. After being introduced to the concepts of BE, students then wrote up and presented a paper on the topic. Next they had to study BE/CSR initiatives of their choice of corporation. During the interim students could decide whether to sign up to support these initiatives. Finally they analyzed the financial performance of their chosen companies in connection with their CSR performance.

Razaki and Collier (2012) used class-room based teaching to introduce some societal value system to a group of accounting and finance students who then took part in a project that has a service component. Dzuranin, Shortridge and Smith (2013) reported a program called BELIEF (Building Ethical Leaders using an Integrated Ethics Framework) that involved the faculty, student and corporations. The activities ranged from faculty development workshops, seminars introducing ethical theories and decision guides to students, quiz, special events, talks by guest speakers, ethics case competition to student-led discussion series. It has to be highlighted that for studies that used a mix of methods, efficacies of the methods in changing students' ethicality were seldom tested statistically.

# 2.4.2 Findings on Part 4 of Literature Review - learning/ teaching methods of BE

By extending the literature search into the domain of BE, Part 4 of the literature review under section 2.4 has identified a wider range of educational initiatives. Several aspects are observed that are enlightening as to how to design the CSR activity for this study. Firstly is the duration of the activities. The studies under examination ranged from a few hours to a year-long BE course. Though not all of the studies assessed effectiveness of their activities



with statistical analysis, students' feedback appeared positive even in some activities that only lasted for a day. So seemingly it is the quality not quantity that counts. Whether impacts of an activity of short duration on students' CSRO or ethical attitude can last for a prolonged period is still subject to examination, nonetheless, they do appear to be useful in the teaching/learning of CSR/BE. And Jones (2009) reckoned that duration was not an issue and confirmed that if being done properly, effective moral and ethics training could be delivered through a relatively short period of time.

Secondly real life case is seen as a prevalent learning and teaching method used. To students, it would be hard for them to fully appreciate how ethical theories are applicable in reality. Case study becomes an economical means that can connect students with the business realm in a classroom setting (Bowden & Smythe, 2008). Genuine case scenarios can assist students in building up ethical awareness, at the same time expose them to situations that require evaluation of alternatives and application of theories to synthesize solutions.

Thirdly is the usefulness of service learning to build up ethical value. Findings from Section 2.4 further affirm the usefulness of service learning in empathizing students on ethical issues. BE education should facilitate students to see how they can contribute to the social good as a future professional, this draws on value judgment and moral character building. To meet this end, lower order learning like memorization and declaration of knowledge is bound to be insufficient. If students were given the opportunity to practice what was being taught in class, this could have more positive and endurable impact to students in their ethical values formation (Sims & Felton Jr., 2005). Deep learning experience such as experiential learning that offers immersive learning is supposed to be effective in value transformation (Dee Fink, 2013; Godsey, 2007; Kolb & Kolb, 2005). Such experience enables students to connect,



generate insights, internalize personal understanding for more enduring development (Ivanitskaya, Clark, Montgomery & Primeau, 2002). And service learning being experiential by nature (Petkus, 2000) is particularly beneficial in the learning of BE (LeClair, Ferrell, Montuori & Willems, 1999; Sims & Felton Jr., 2006). Students usually give positive responses to such learning experiences (Cahn & Glass, 2011; Flannery & Pragman, 2008; Hazen, Cavanagh & Bossman, 2004; Kwak & Price, 2012; Seider, Gillmor & Rabinowicz, 2011; Warnell, 2010). They regard service-learning is a process of self-discovery (Weber & Glyptis, 2000); it is eye-opening and enlightening (Spain et al., 2005); an effective way to help students connect business with ethics (Kohls, 1996); can foster emotional engagement so as to impart more lasting influence (Wittmer, 2004); sensitize them towards community stakeholders' needs (Seider et al., 2011); and it has positive contribution in the learning of ethics (Debeljuh & Destefano, 2005). As far as this literature review goes, it reinforces the benefits and effectiveness of service-learning in the teaching and learning of BE.

Finally it is noted that using a combination of teaching/learning methods is a commonly adopted approach in the discipline of BE. And the suitability of using a variety of pedagogies in teaching BE so as to engage students better is in fact endorsed by scholars (Bosco, Melchar, Beauvais & Desplaces, 2010; Sims & Felton Jr., 2006). Setó-Pamies and Papaoikonomou (2015) reviewed the teaching of CSR in the higher education of different countries and confirmed teaching could take place outside the formal curriculum as extra-curricular or co-curricular activities. The versatile nature of BE and CSR, makes it appropriate to apply a combination of diverse pedagogical and learning methods. From the selected studies, mixed forms of pedagogical and learning means were frequently adopted, though with different weightings.



# 2.5 Part 5 of Literature Review - the measurement scales to assess CSRO

In order to assess individuals' CSRO, it is essential to identify an appropriate measurement instrument that is fit for the purpose. Section 2.5.1 summarizes the measurement scales that were found in gauging CSRO of students from the selected literature. Section 2.5.2 describes in greater details the measurement scale E-CSRO, its design and ipsative feature, the rationales of choosing it as the measurement scale of this study, and its suitability to be translated into Chinese.

# 2.5.1 A summary of the scales

From the literature extracted for review under Section 2.3, a number of studies had used some form of measurement instruments to assess CSRO. These scales are summarized in Table 2.2 below.

# Table 2.2.

Summary of Measurement Instruments to Assess CSRO

Instruments to measure attitude towards CSRO	No. of studies
E-CSRO, Aupperle (1982, 1984); E-CSRO, Aupperle et al. (1983)	9
Perception of ethics and Social responsibility PRESOR, (Singhapakdi et al., 1996)	6
Questionnaire developed by the Aspen Institute's Initiative for Social Innovation through Business, Aspen ISIB.	2
Self-designed questionnaires based on various theories and concepts.	18
CSR-perception scale by Mudrack (2007)	1
CSRO scale developed by Maignan (2001)	1
TOTAL	37



Out of the 37 studies, 9 adopted E-CSRO as their measurement instrument created by Aupperle (1982). The E-CSRO is a forced choice or ipsative scale that enabled individuals to indicate the relative importance of orientation towards a CSR (i.e. CSRO) in score weightings with reference to A.B. Carroll's CSR dimensions of Economic, Legal, Ethical and Discretionary. The ipsative nature of this measurement scale will be further explored under Section 2.5.2 below.

The second most popular measurement scale of CSRO is PRESOR (Perception of Ethics and Social Responsibility) by Singhapakdi et al. (1996). PRESOR applies a nine-point Likert scale from "strongly disagree to "strongly agree on each of the 13 item statements. The scale measures a person's CSRO in relation to a firm's effectiveness as expressed in three dimensions namely: profitability, long-term success and short-term success. Reliability and validity of the PRESOR has been shown in various studies (Marta & Singhapakdi, 2005; Shafer, Fukukawa & Lee, 2007; Singhapakdi, 2004). Even though PRESOR is also a popular scale, it approaches CSRO from an angle that is different from the dimensions of the CSR Pyramid.

Another big group is "self-designed instruments" that is made up of various kinds of measurement scales, mainly designed by the writers themselves. Very often the content and validity of these instruments were not clearly explained in the writings. For example, some cross-cultural studies had applied measurement instruments to participants living in places where English was not their first language. One study that was conducted in Taiwan (Chen, Mujtaba & Heron, 2011) only mentioned the English instrument was translated into Chinese without further elucidation whether the instrument had undergone any validation process. Another two studies, one conducted in Mainland China by Wang and Juslin (2012) the other



in Egypt by Ibrahim and Angelidis (1994), did mention translating and back-translating the instrument, but again in both cases whether the translated instrument was empirically tested for validity and reliability within the new cultural contexts is unknown. And sometimes it was not clear whether any translation was done at all. Without such supporting information, interpretation of the findings would have to be treated cautiously.

# 2.5.2 The E-CSRO measurement scale

### 2.5.2.1 Design of E-CSRO

Aupperle (1982) followed stringent steps to develop a valid and reliable measurement scale. First, the item statements were obtained from other empirical studies where CSR statements of high recognition were selected. They were then subjected to blind review screening processes. Eventually 80 individual statements were selected and grouped under 20 questions. Four statements were assigned to each question, and each statement corresponded to one of A.B. Carroll's (1979) four CSR dimensions of Economic, Legal, Ethical and Discretionary. Thus each question together with the four related statements can be viewed as a question set. The statements were randomly ordered within each question set so as to reduce familiarity of their association with their corresponding CSR dimension.

The original E-CSRO was first empirically tested with 158 undergraduate business students. After that it was sent to 818 CEO's of companies listed in Forbes 1981 Annual 500s Directory for completion with N=241. Statistical results in terms of coefficient of internal



consistencies ranged from .84 to .90 showing high reliability; correlation between the economic and the three non-economic dimensions of Discretionary, Legal and Ethical respectively are r = -.47, -.48 and -.71; Principal Factor Analysis with Varimax rotation indicated that out of the 80 items, 59 had loadings greater than .4. Aupperle et al. (1983) concluded that the E-CSRO had embedded four empirically interrelated but conceptually independent CSR constructs of Economic, Legal, Ethical and Discretionary. Eventually 15 sets of questions were selected to form the validated E-CSRO measurement scale.

Respondents are asked to allocate scores up to a maximum of 10 points in total to the four statements within each question set. Equal scoring for each statement under the same question is allowed and total scores can be below 10. By deciding on the relative scores of each statement under the same question, tradeoffs that arise in prioritizing CSRO can be expressed. And the aggregate scores on the statements supposedly can reflect a person's CSRO as expressed through the four CSR dimensions of Economic, Legal, Ethical and Discretionary. The instruction and two sample sets of the item statements from the original E-CSRO are extracted below as a reference.

### **Original E-CSRO - Instruction and sample questions**

Based on the relative importance and application to your firm, allocate up to, but not more than, 10 points to each set of four statements. For example, you might allocate points to a set of statements as follows:

$$A = 4 \qquad A = 1 \qquad A = 0$$

 $B = 3 \qquad \qquad B = 2 \qquad \qquad B = 4$ 



C = 2 or	C = 0 or	C = 3
<u>D = 1</u>	<u>D = 7</u>	$\underline{\mathbf{D}} = 0$
Total = 10 points	Total = 10 points	Total = 7 points

# 1. It is important to perform in a manner consistent with:

- (Economic)\* A. expectations of maximizing earnings per share
- (Legal)\* B. expectations of government and the law
- (Discretionary)\* C. the philanthropic and charitable expectations of society
- (Ethical)\* D. expectations of societal mores and ethical norms

Total \_\_\_\_\_

# 2. It is important to be committed to:

- (Economic)\* A. being as profitable as possible
- (Discretionary)\* B. voluntary and charitable activities
- (Legal)\* C. abiding by laws and regulations
- (Ethical)\* D. moral and ethical behavior
- Total \_\_\_\_\_

\* In the actual questionnaire, the words Economic, Legal, Ethical and Discretionary will be hidden leaving a blank space for the respondents to fill in the scores.

# 2.5.2.2 The ipsative nature of E-CSRO



The term "ipsative" was first coined by Cattell (1944) and its Latin root "ipse" means "he or himself". An ipsative scale has some unique usefulness and usability (Kerlinger, 1986). It measures an attribute of a person that depends on and relative to scores of the other attributes being assessed by the same person (Brown & Maydeu-Olivares, 2011). For a pure ipsative scale, a person's item scores for a certain attribute should always sum up to the same constant (Clemans, 1966; Radcliffe, 1963). In the case of E-CSRO, the sum of scores for all items within each set of item statements may range from 0 to 10, as such it is regarded as partially ipsative only (Hicks, 1970).

The ipsative nature of E-CSRO acknowledges the possibilities for a person to have overlapping or even conflicting CSRO and allows the expression of such a state of mind. By measuring an individual's relative rather than absolute importance of a CSR, it can explore intra-personal differences that otherwise are not attainable by using normative scale (Broverman, 1962). In his original work to devise E-CSRO, Aupperle (1982) said "It is actually the proportional value of each component that is relative to the others defines CSR for a given firm at a point in time" (pp. 55). That means E-CSRO actually mimicked the business reality of scarcity in resources, accommodate competing CSR objectives and the possibility of ethical dilemmas.

This unique feature of E-CSRO in measuring relativities is also exactly where its merit lies (Burton et al., 2000). When the items are juxtaposed and being assessed on the relative instead of absolute importance, they actually help soften undesirable response bias such as, awarding high scores to all items due to social desirability bias (Aupperle et al., 1983), and discourage uniform bias due to acquiescence as well (Cheung & Chan, 2002). In other words, a forced choice scale can lead to more honest results (Aupperle, 1991). All in all, E-CSRO



evokes personal judgments on the relative importance of the four CSRO domains, enables the expression of trade-offs in choosing among different CSR objectives, while giving measurement feasibility of A.B. Carroll's (1979) conceptual framework on CSR.

# 2.5.2.3 The rationale of adopting E-CSRO

The rationale of choosing E-CSRO as the measurement scale can be explained from two angles. Its suitability as a measurement scale for this study and its suitability as a measurement scale to be translated into another language, especially Chinese. With regard to the former, Section 2.5.2.2 above has already stated a number of merits of E-CSRO as a measurement scale. Apart from these, since E-CSRO was built upon A.B. Carroll's (1979, 1991a) CSR Pyramid whereas this thesis also adopts the same conceptual framework, thus making E-CSRO a logical choice of measurement scale.

With regard to its eligibility for translation into a Chinese measurement scale, there are sound reasons to justify the choice of E-CSRO as well. Flaherty et al. (1988, p.258) listed three criteria in selecting an instrument for translation that include: "i) the instrument has already proven to be cross-culturally equivalent; ii) the instruments had been extensively tested and found to be psychometrically sound in one culture but have not been tested in other cultures; iii) instruments that have high face validity but require further psychometric testing in the country of origin followed by cross-cultural validation." E-CSRO was built upon a well-established conceptual CSR framework that had gone through solid testing and validation with academic rigor and had proven its reliability in a number of previous studies. It had been repeatedly used by different scholars and applied to different social contexts with some multi-



cultural samples (Aupperle & Simmons III, 1989; Aupperle, Simmons III & Acar, 1990; Burton, & Hegarty, 1999; Burton et al., 2000; Ibrahim & Angelidis, 1993; Ibrahim & Angeldis, 1995; Maignan & Ferrell, 2000; O'Neill, Saunders & McCarthy, 1989; Pinkston & A.B. Carroll, 1996).When Burton et al. (2000) applied E-CSRO to university students in the United States (N=165) and Hong Kong (N=157), the results also supported E-CSRO as a usable measurement instrument for a Chinese ethnic group in its source language. In another study, Ramasamy and Yeung (2009) applied E-CSRO among Chinese consumers in Hong Kong and Shanghai and found that the Chinese were able to differentiate the four CSR dimensions of Economic, Legal, Ethical and Discretionary. Overall, these scholarly works confirmed the suitability of E-CSRO to be translated into Chinese.

Even though E-CSRO is not without criticism (A.B. Carroll,1991; Schwartz,1998) but as Aupperle (1991) himself has concluded that "the issue of corporate social orientation is so elusive, it is highly likely that no single method will ever be able to provide a definitive assessment", and "it would be unwise and unproductive to expect methodological perfection" (p.271).

### 2.6 A broad overview of CSR education in Hong Kong

In order to make more informed decisions as to how to design the CSR activity for this study, some understanding as to the current status of BE/CSR education in the higher education sector of Hong Kong is essential. Navigation to the websites of the main business schools/faculties in Hong Kong was conducted covering the University of Hong Kong, Chinese University of Hong Kong, Hong Kong Baptist University, Hong Kong Polytechnic



University, Hong Kong University of Science and Technology, City University of Hong Kong and the Lingnan University. Although programme and course information that is drawn from the web source may not be thorough and meticulous enough, a crude idea as to how respective local universities are in supporting BE/CSR education can still be obtained. The flow of this Section starts looking at the mission statement of the individual business schools, then examines various undergraduate business programme structures to identify the presence of BE/CSR courses, followed by key aspects found on the curriculum content and teaching/learning methods of the programmes; finally is a literature review summary on the few published journal articles that are specifically on BE/CSR courses of the universities in Hong Kong.

At the outset, individual business school's mission/vision statements that reflect their core values are under review. All universities except two explicitly mention it is one of their missions to develop business students' ethicality or nurture them as socially responsible persons. For those that highlight such need to cultivate business students' ethicality, seemingly the focus is more on raising their ethical awareness.

Next, individual business programme's curriculum structures at the undergraduate level were examined. As far as the accessible information goes, all of these universities offer some kind of BE/CSR related courses, but with varying degrees of attention and emphasis. The majority of them have at least one discrete BE/CSR course. In a few instances, the institutions expanded into other related courses such as sustainability management or global business ethics. Not all of them, however, treat BE/CSR course as a common core or compulsory subject required by all business programmes. In one case CSR course is offered as a general education elective course, in another BE/CSR courses are grouped under a required cluster of



business subjects also as elective subjects only. Besides, it is also possible that BE/CSR are being embedded within another non-ethics business course that cannot be told from the information available from the websites. It is noticed that for certain business programmes that are more technocratic by nature e.g. finance or computational based, BE/CSR course are not on such programmes' core course list. Comparatively it is more common to find BE/CSR course in the core curriculum of the general BBA programmes that are without specialism or those that specializes in business management, marketing and human resources management. Among these seven universities, the Hong Kong Baptist University (HKBU) has explicitly stated that it aims to place itself for a leading position in the Asia Pacific rim in BE education. Therefore apart from having a BE compulsory course in its business curriculum structure, market positioning and research outputs of the HKBU business school, all align with the BE/CSR focus.

With regard to the course curriculum content including teaching and learning methods that are used to deliver the courses, such information are not fully accessible to external parties; and often it is presented in different format and extent by different institutions, thus undermined the possibility of a systematic benchmarking. From the limited information that is open to public access, several aspects are noted. Firstly it is quite obvious that the traditional learning and teaching methods such as lectures, reading, case studies and discussion are still the mainstream methods being used. In particular real business case study is a commonly adopted teaching/learning method. Ostensibly, teaching/learning methods of a more practical nature e.g. service learning, are missing from the formal BE/CSR course curriculum. One university states the importance of holistic development of its students and requires all graduates to have completed 3 credits of service learning. It should be noted that, however, the service learning being undertaken does not necessarily mean they are BE/CSR



related. Another one turns a group presentation on real CSR case into a competition with monetary rewards, which also becomes part of the formal assessment of the course.

Judging from the news of students' activities being released on the universities' websites, on and off there are BE/CSR themed extra-curricular activities that are more practical based e.g. company visits and seminars hosted by CSR professionals. Yet there is a lack of evidence to conclude that such activities are part of the formal curriculum and participation by students is compulsory. So even though there is proven value of a BE/CSR learning experience in authentic business milieu such as service learning, it is seldom found that such kind of activities are formalized as compulsory learning activities and as part requirement of the course curriculum. The fact that organizing such kind of field activities is resource and time taxing perhaps can explain the phenomenon.

As far as published literature goes, there are a few academic journal articles that specifically studied BE/CSR initiatives in the Hong Kong context. Wong (1995) pioneered a qualitative study on teaching computer ethics to university students in Hong Kong. After a six weeks' computer ethics course, noticeable attitude change were found with improved awareness in computer ethics, and students were interested to know more about ethical standards and behaviours. The study is anecdotal and does not have any appropriate measurement scale to quantify such changes.

As mentioned earlier, business school of the HKBU has clearly positioned itself to develop business ethicality of its graduates as a core attribute. There is a published literature that actually explains in details about the rationales behind and content of a BE course offered by the University (McCann, Lam & Chiu, 2001). In the academic year 2000-2001, a BE course



became a core subject in the business curriculum of HKBU which adopted an interdisciplinary approach by linking BE to different business domains. Both Chinese and Western moral theories, philosophies, cultural and religious values are introduced, and students have to apply them together with their personal values to resolve ethical dilemmas. Besides using more conventional teaching methods of seminars and lectures, there is a field trips component to visit local organizations that promoted BE. Case study is clearly another important part of the learning activities with specific linkage to the field trips. Also, students were guided to conduct self-reflection of the moral challenges ahead.

Another writing studied the teaching/learning of BE within the context of the Lingnan University. Simmons, Shafter and Snell (2009) used a business ethics course as an intervention to measure changes in attitude towards BE and CSR of some business and non-business undergraduates (X group N=79) (Control group N=53). Using PRESOR (Singhapakdi et al., 1996) as the measurement scale and the business ethics course as the intervention, respondents' pre/post-test CSRO scores were measured as represented by the stockholders (less CSR sensitive) or stakeholders' (more CSR sensitive) views. Endorsement from students on the stockholders' view was significantly weaker after going through the BE course, and post-intervention scores in the stakeholders' (more CSR sensitive) views was significantly stronger in the business students group.

Whitla (2011) conducted another study also at the Lingnan University that integrated an ethics component into a year 1 required course of International Business. The learning goal is first defined as raising ethical awareness and comprehension ability rather than the more advanced stage of evaluation. Again a case study approach is used but students have autonomy in researching their choice of organization and the ethical issues involved. The



study also used the PRESOR scale for a pre/post study to measure the changes in ethical attitude. Results of this study inspires further incorporation of the BE topic into other business functional courses such as accounting and marketing and the need to develop other forms of teaching tools.

From the above summary, at least we can come to the understanding that BE/CSR education can be commonly found in the business curriculum of the universities in Hong Kong, though with different emphasis. The traditional teaching/learning methods of lectures and seminars, and assessment methods of written assignments, examinations and test, still appear to be dominant. It is clearly evident that case study is a commonly used teaching/learning method in BE/CSR subjects, whether it is a teacher-controlled, or student-controlled approach i.e. students are given the freedom in choosing, researching and writing up own case materials. Other than these, activities of a more practical nature e.g. company visits or service learning in relation to CSR is used but not as a mandatory component of the curriculum; very often such practical experience can only be acquired through voluntary participation to some co-curricular activities.

# 2.7 From literature review to research question and hypotheses

Chapter 1 started off with a big picture of the need to conduct a study on CSR education and the significance in knowing how to change business students' CSRO of the Hong Kong Chinese group. To facilitate the development of this rather vague idea into a feasible research topic, Chapter 2 is a literature review that examined a range of literature covering six key



areas in relation to this study. Findings from Section 2.1 through to 2.6 laid down firm foundations upon which the entire thesis including the research question, objectives and hypotheses can be developed.

Section 2.1 is a chronological scan on the developmental history of CSR. The idea of CSR first started on philosophical grounds but gradually grew into a diversity of derivative themes and actions of practical value. CSR itself is a mega and organic topic and the task of arriving at one universal definition is still a contestable debate (Okoye, 2009, Baden & Harwood, 2013), thus making it a challenge to frame it within a single definition. Basically any theoretical framework that tries to frame an inherently broad and labyrinthine topic like CSR into specific terms is bound to be inadequate. Nevertheless during the course to search for a common definition, the literature clearly pointed to A.B. Carroll's (1979, 1991a) framework as one of the most frequently used and tested model. So Section 2.2 Part 2 of the literature review was specifically dedicated to further understand the Pyramid of CSR, examined both its strengths and weaknesses. Having considered its conceptual soundness, it is decided to adopt the Pyramid of CSR as the working definition of CSR that will underpin this entire study.

In order to understand how to operationalize this study, Section 2.3 Part 3 of the literature review examined a range of writings on the topics of CSR education at the higher education in general, the teaching/learning methods of CSR, what is the status of students' CSRO and the ways for its development. It is noticed that researchers had expended more efforts in explaining the reasons why CSR education is needed rather than to understand the teaching/learning methods or the how in developing students CSRO. This reveals a research void thematically to explore effective pedagogical/learning activities that can foster business



students a higher sense of CSR or positively influence their CSRO. Also it was found only limited number of study had experimented with some kind of pedagogic/learning methods, and even less had used more stringent statistical analysis to test for their effectiveness. Such gaps thematically and research methodically have assured the usefulness of an experimental type of study that uses an educational activity as an intervention, and have its effectiveness in changing the pre-post intervention CSRO scores tested statistically.

With regard to what form of learning/teaching activities are to be used in the intervention, further insights have to be obtained from the literature review. Section 2.4 was conducted to cover literature that are solely on the teaching/learning methods for BE so as to elicit more ideas on good practices. Findings from Section 2.3 and 2.4 together provided some useful hints in guiding how the intervention of this research should be designed subsequently that include: the case study approach is particularly popular; the adoption of a combination of the teaching/learning methods is beneficial for the subject domains of BE/CSR; and that service learning has proven to be an effective and useful means in building up ethical values for the participants.

Section 2.5 extracted from the selected literature the measurement scales that were used to assess CSRO. Based on the CSR Pyramid, Aupperle (1982) derived E-CSRO a measurement scale in assessing CSRO of individuals which was regarded as robust, highly reliable and psychometrically sound (Ibrahim et al., 2006), and it is a popular scale used by varioius scholars in gauging the CSRO of individuals. In view of this, E-CSRO is to be adopted as the measurement instrument to assess changes in pre-posttest CSRO of the student samples in this study. Since it is originated in English, whereas the participating students are Hong Kong Chinese, it is then desirable to first translate E-CSRO into Chinese and have it validated



before the actual implementation. This process of scale development will be covered in Chapter 3.

As this thesis will study the Hong Kong Chinese business students, it would be beneficial to obtain some prior understanding of the current status of CSR education in Hong Kong. So Section 2.6 gives a broad overview of CSR Education in Hong Kong. Based on findings from Section 2.3 and 2.4 together with some supporting evidence from Section 2.6, several succinct aspects concur. It is found that in the teaching/learning of BE/CSR, the traditional teaching/learning methods in particular the case study approach are commonly used; very often a combination of methods are adopted; also the benefits of using service learning to assist students in learning BE/CSR is clearly assured.

So far a reasonably comprehensive range of relevant studies were reviewed. Outcomes of the literature review have not only confirmed the significance of a study to investigate how to change CSRO of business students, but also illuminated as to how the intervention activity and the research method of this study can be designed. With these conceptual grounds in mind, the research questions, objectives and hypotheses of this thesis can be further defined in more concrete terms.

This study aims to address the core research questions of "how to change the CSR orientation (CSRO) of business students". And the sub research question is "how effective is a CSR themed educational endeavor in influencing business students' CSRO". From which two concrete research objectives can be developed. First is to assess the efficacy of a CSR-themed intervention in influencing the CSRO of a group of sub-degree Hong Kong Chinese business students. Second is based on the results obtained, explore on the prospect of such kind of



activity in CSR education and implications for educational research. Following these guiding questions and directions, the following hypotheses are developed.

# Hypothesis 1

It is hypothesized that there are significant differences in post intervention mean scores of the four CSRO of Economic, Legal, Ethical and Discretionary, between the Experimental and Control groups.

$$\begin{split} & H_{0}: X_{E, I} = C_{E, I}; \quad \text{or} \quad H_{a}: X_{E, I} \neq C_{E, I} \\ & H_{0}: X_{L, I} = C_{L, I}; \quad \text{or} \quad H_{a}: X_{L, I} \neq C_{L, I} \\ & H_{0}: X_{Eth, I} = C_{Eth, I}; \quad \text{or} \quad H_{a}: X_{Eth, I} \neq C_{Eth, I} \\ & H_{0}: X_{D, I} = C_{D, I}; \quad \text{or} \quad H_{a}: X_{D, I} \neq C_{D, I} \end{split}$$

# Hypothesis 2

It is hypothesized that there are significant differences between pre and post intervention scores of each of the four CSRO variables of Economic, Legal, Ethical and Discretionary within the Experimental group.

 $H_{0}: X_{E} = X_{E, I} \text{ or } H_{a}: X_{E} \neq X_{E, I}$   $H_{0}: X_{L} = X_{L, I} \text{ or } H_{a}: X_{L} \neq X_{L, I}$   $H_{0}: X_{Eth} = X_{Eth, I} \text{ or } H_{a}: X_{Eth} \neq X_{Eth, I}$   $H_{0}: X_{D} = X_{D, I} \text{ or } H_{a}: X_{D} \neq X_{D, I}$ 



# Hypothesis 3

It is hypothesized that there are no significant differences between pre and post intervention scores in each of the four CSRO dimensions: Economic, Legal, Ethical and Discretionary within the Control Group

 $\begin{aligned} H_{0}: C_{E} = C_{E, I} & \text{or} & H_{a}: C_{E} \neq C_{E, I} \\ H_{0}: C_{L} = C_{L, I} & \text{or} & H_{a}: C_{L} \neq C_{L, I} \\ H_{0}: C_{Eth} = C_{Eth, I} & \text{or} & H_{a}: C_{Eth} \neq C_{Eth, I} \\ H_{0}: C_{D} = C_{D, I} & \text{or} & H_{a}: C_{D} \neq C_{D, I} \end{aligned}$ 

# Legend

- X =Experimental Group
- *C* =Control Group
- $X_E$  = pre intervention Economic score of the X group
- $X_L$  = pre intervention Legal score of the X group
- $X_{Eth}$  = pre intervention Ethical score of the X group
- $X_D$  = pre intervention Discretionary score of the X group
- $C_E$  = pre intervention Economic score of the C group
- $C_L$  = pre intervention Legal score of the C group
- $C_{Eth}$  = pre intervention Ethical score of the C group
- $C_D$  = pre intervention Discretionary score of the C group
- *I* = Post intervention scores



### 2.8 Chapter Summary

Initially there is a rather big picture that CSR education and how to develop business students' CSRO, in particular the Hong Kong Chinese business students, is needed. In order to firm up this rather vague thought into concrete research questions and hypotheses, a series of literature review that can clarify a number of conceptual issues were performed in Chapter 2. This Chapter started off by scrolling through the developmental history of the notion of CSR and arrived at the conclusion that A.B. Carroll's (1979, 1991a) CSR Pyramid will be the appropriate definition of CSR for this thesis. Then a broad range of writings on CSR education was reviewed and several findings were revealed. Theme-wise, studies on how to teach CSR and knowing how to influence students' CSRO are inadequate. Research methodwise, there is a general lack of experimental types of study that involved educational intervention and have its effectiveness tested with more robust statistics. So up to this stage it is decided that this thesis should design a CSR themed intervention that comprises of some teaching/learning activities with the aim to change the participating students' CSRO. And pre-post intervention CSRO scores should be analyzed to ascertain the effectiveness of the intervention. With regard to the content of the intervention activity, findings of the literature review reveals clear evidence that supports: the usage of a mix of learning and teaching methods, the adoption of a case study approach on real CSR scenarios, and service learning in authentic environment stood out as an effective means in BE/CSR education. These directions will be followed when designing the intervention activity and will be further explained in Chapter 3. Other than these, the literature review also shows that a number of personal variables including age, gender, academic majors and religiosity appear to have potential influence in moderating a person's CSRO. Hence, these factors will be considered as controlled variables when analyzing CSRO changes in this study. The above has



summarized the key aspects of Chapter 2 and more importantly how they contribute bit by bit in defining the research question and hypotheses. Even though the literature review followed a clearly defined procedural framework and a more systematic review process, unavoidably it has certain limitations. The keywords used in eliciting literature suffered from an inherent restriction of its own lexical limitation that may not be able to capture all relevant writings. Owing to resource considerations, the databases used for the literature search, though reasonably representative, might not be fully exhaustive. Especially for Section 2.3, during the course of selecting and consolidating a diverse range of writings into a common framework so that meaningful analysis can be synthesized, certain degree of subjective judgment was inevitable.

Next is Chapter 3 Research Methodology and Methods. It will be divided into four main parts. The first part Section 3.1 explains the rationales of adopting a quasi-experimental research methodology for the overall study. Section 3.2 describes in details the content and schedule of the intervention; the administration in samples recruitment and data collection; and the method for data analysis. Section 3.3 focuses on scale development that covers the process in obtaining and refining a version of E-CSRO that is fit for the purpose of this study, the steps in translating E-CSRO into Chinese (C-CSRO) up to the point a version of C-CSRO is derived and is ready for validation. Section 3.4 concentrates to explicate the validation procedures of C-CSRO and the statistical outcomes.



# Chapter 3

# **RESEARCH METHODLOGY AND METHODS**

Chapter 3 covers the research methodology and methods used in this study. Section 3.1 first explains the overall methodology used to address the research question, i.e. a scientific worldview, a quantitative research methodology with a quasi-experiment research design. The quasi-experiment involves two key parts: a CSR-themed intervention and the development of a measurement scale to collect data. Section 3.2 is about the intervention; Section 3.2.1 elaborates on the conceptual grounds guiding the design of the intervention; Section 3.2.2 describes the rundown and activities of the intervention; Section 3.2.3 and Section 3.2.4 outlines the administrative procedures in the recruitment of participants and data collection; Section 3.2.5 explains the statistical methods used to analyze data obtained from the Experimental and Control groups. Chapter 2 has confirmed that E-CSRO is an appropriate choice of measurement instrument for this study. Before E-CSRO is ready for use, it is first converted into a reliable and valid scale in Chinese. So Section 3.3 is about development of the measurement scale. Section 3.3.1 first describes how E-CSRO is refined and adapted into a version that is relevant to the situation of Hong Kong. Section 3.3.2 summarizes some popular methodologies and good practices in translating measurement scale. Section 3.3.3 covers the steps in translating E-CSRO into Chinese and the procedures in data collection for the validation of C-CSRO; Section 3.3.4 describes the two statistical methods of Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) that are employed for the validation of C-CSRO; and Section 3.4 reports on the statistical results in validating C-CSRO.



### 3.1 Overall methodology – A quasi-experiment

To recapitulate, the research question for this study is "how to change the CSR orientation (CSRO) of business students". This is further developed into the research objective of assessing the effectiveness of a CSRO-themed educational intervention in changing the CSRO of a group of sub-degree Chinese students studying business. It is hypothesized that after going through a CSR themed intervention, there will be significant differences in the post-test CSRO scores between the Experimental (X) and the Control (C) group; and there will be significant differences between the pre/post-test CSRO scores within the X group.

The adoption of a research methodology depends on the research questions posed and the assumptions underlying the methodology. In order to address the research question of this study, a scientific research methodology using an experimental research design is appropriate and will be adopted. A scientific perspective assumes there is an objective reality that can be investigated so as to identify causal relationships among variables, and theories can be verified and hypothesis tested (Phillips & Burbules, 2000). Through discovering or "understanding these (pre-existed) laws and establishing relevant facts, we can then understand how and why people behave as they do" (Walliman, 2011, p.74). An experimental design measures the effectiveness of an intervention in influencing the participants' changes in CSRO by comparing the pre/post stages of the dependent variables; thus enabling testing of the hypothesis and enhancing internal validity of the findings. Given the environmental and resource constraints faced by this study, it is expected that the process of samples recruitment will be non-randomized, so strictly speaking the research design is classified as a quasi-experiment (Keppel, 1991). A quasi-experiment method has relaxed some requirements of a true experimental design and might restrict generalizability of the findings. Nevertheless



when it is not possible to conduct a true experiment, a quasi-experiment is still a valid and useful option (Graziano & Raulin, 2013) and is regarded an appropriate alternative if the aim is testing hypothesis rather than generating theory (Babbie, 2015).

The researcher administered treatment to the X group only. Pre/ post intervention CSRO scores of the X-group are gauged using the measurement scale C-CSRO. Such a within subject design turns the pre-test X group into a control group in itself, enabling self-comparison of changes over time (Adams & Lawrence, 2015). With a repeated measures design and control group feature being built-in, output obtained will become more interpretable and hypotheses testing can be rendered (Campbell & Stanley, 1963). Using Campbell and Stanley's (1963) classical notation system, Figure 3.1 below illustrates diagrammatically the design of this study where Group A is actually the Experimental group that receives the treatment and is denoted as X in Campbell and Stanley's terms, whereas Group B is the Control group. Observation or collection of data (O) takes place in pre and post intervention of both groups.

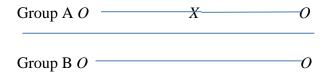


Figure 3.1. An Experimental Design of the Study



### **3.2** The Intervention

#### **3.2.1** Conceptual grounds in designing the intervention

As highlighted in Chapter 1, Rossouw's (2002) concept in teaching BE will underpin the overall design of the intervention. This Section further elaborates on Rossouw's concepts and how they can be borrowed when designing the intervention activities. Besides, the literature review findings from Chapter 2 that has summarized some good practices in the learning and teaching of CSR/BE will also be referenced with and adopted whenever appropriate and applicable. Such good practices include: the fundamental importance of building up ethical cognition, the advantages of using genuine cases to connect students to the real world; the benefits of experiential learning especially service learning opportunities and the adoption of a mix of educational activities to enhance BE education.

Rossouw (2002) argued that BE education should aim to develop the capacity or competence of students so that they will be more inclined to behave morally. To meet this end he suggested three learning outcomes: cognitive competence, behavioural competence and managerial competence. These outcomes do not exactly align, yet they largely correspond to the cognitive, affective and conative elements of the trilogy view of attitude. Roussouw's (2002) three learning outcomes in BE education are elaborated below one by one.

The first learning outcome is "cognitive competence". Rossouw (2002) reckoned before students can make ethical judgment, they should first be morally informed i.e. to be aware of and conversant with the ethical issues and become ethically literate. This involves intellectual



understanding, acquisition of knowledge and skills for moral reasoning. Rossouw's cogntive competence concurs with the cognitive element of attitude under the trilogy view. The teaching strategy to deliver this outcome, according to Roussow (2002), is to empower students with knowledge, vocabulary and tools for ethics discourse and ethical reasoning. Some commonly used educational means to achieve this can include self-study of reading materials and attend ethics courses or lectures/talks on ethical theories (Rossouw, 2002; Martinov-Bennie & Mladenovic, 2015).

Apparently cognitive competence alone is only a necessary but not a sufficient condition for ethicality to take place (Bowden & Smythe, 2008), other kinds of internal transformation within a person are needed. Roussow (2002) suggested that "behavioural competence" should be the second learning outcome of BE education. The word "behavioural" in this context does not refer to the action itself, rather it refers to the development of social empathy, the building up of ethical courage or a moral character. Through the cultivation of behavioural competence, students are expected to be more inclined to behave ethically thus making moral behaviour more predictable. Simply put, cognitive development has to be supplemented with affective development. The teaching strategy should allow students to acquire experience that has volitional and affective benefits and can nurture moral virtues. Two educational means are found from the literature that can contribute in meeting this end. First is learning by studying real life cases or sharing from people with moral visions (Falkenberg & Woiceshyn, 2008; McWilliams & Nahavandi, 2006; Singer, 2013). Second is through social interactions and experience such as participation in role-play in a simulated environment (Jagger et al., 2015) or taking up servicing tasks in an authentic environment (Debeljuh & Destefano, 2005; Godfrey, 1999; LeClair et al., 1999; Hazen, Cavanagh & Bossman, 2004; Seider et al., 2011;



Rossouw's third learning outcome in BE education is the development of students' "managerial competence" i.e. to raise students' ability in putting ethical knowledge and aspirations into praxis so that they can deal with ethical issues from an organizational perspective. When BE is being successfully practiced, in Rossouw's (2002) terms it becomes moral efficiency and instrumental morality that can benefit the businesses eventually. To achieve this, students should be assisted to connect ethical insights and knowledge to real business situations, to see how ethics can be practiced within organizational contexts so as to stimulate managerial conduct eventually. Educational means can include observation of rolemodel companies or managers that have experience in moral success; or experiential learning by direct participation in corporate ethical actions. This third learning outcome suggested by Rossouw echoes with the conative element of the classical theory of attitude but being put within a business context. It should be noted that managerial competence in Roussouw's term only refers to raising students' ability to put learning into practice but it does not mean the actual behavior itself. Even though BE education cannot guarantee ethical behaviour, nevertheless it should at least raise students' propensity to turn morality into actions eventually. Using Rossouw's (2002) concept as the main guiding principle, the activities content are designed and presented in the next Section.

# **3.2.2** Content of the intervention



The intervention is a one-off co-curricular event that lasts for about 7 hours in total and is made up of a series of activities. It can be broken down into three main parts: Activity I Prefield visit, Activity II Visit to the Eaton Hotel and Activity III Servicing experience at Soap Cycling, an NGO partner of the Hotel. Each of these three main activities further consists of one or more smaller activities. Table 3.1 shows the rundown and duration of the intervention, and how each activity can be related to Rossouw's learning outcomes and the trilogy component of attitudes. Following Table 3.1 is an elaboration on each of the intervention activity, and its relationship to Rossouw's expected learning outcomes. Since the host organizations have capped their carrying capacity per visit, in order to accommodate more participants to join, the intervention was run twice on two consecutive days, with exactly the same schedule, duration, contents and speakers.

# Table 3.1.

## Activities Schedule of the Intervention

Activities	Time/ Duration	Roussouw's learning outcome/ the trilogy view of attitude
Activity I Pre-field visit Take-home readings on articles about CSR	3 hours	Cognitive competence / cognitive
Activity II Visit to the Eaton Hotel Activity II.a Brief introduction on what is CSR by the researcher	2:10 – 2:25 pm (15 min.)	Cognitive competence /cognitive
Activity II.bTalk byDirectoroftheFullnessVocationalTrainingCentretosharehisexperienceofhowFullnessprovidesjob	2:25 – 3:10 pm (45 min.)	Behavioural competence /affective



opportunities to deviant youths and help them to rebuild their confidence. Q&A		
Activity II.c Talk by the CSR project officers of the Hotel on how it has performed CSR. Q &A	3:10 – 3:50 pm (40 min.)	Cognitive and managerial competence / cognitive and conative
<b>Activity II.d</b> Guided tour in small groups around the Eaton Hotel to observe how CSR can be put into practice (including Q & A during the tour).	3:50 - 4:35 pm (45 min.)	Cognitive and managerial competence / cognitive and conative
Travel to Soap Cycling, an NGO partner of the Eaton hotel.	4:35-5:00 pm	
Activity III. Servicing experience at Soap Recycling Activity III.a Briefing by staff of Soap Cycling about its background and operation; the servicing tasks that students are going to participate in.	5:00 – 5:15 pm (15 min.)	cognitive competence/ cognitive
Activity III.b Participate in servicing tasks at Soap Cycling. Students form into small groups to recycle used soaps into usable form.	5:15 – 6:20 pm (1 hr. 5 min.)	Behavioural and managerial competence / affective and conative
Activity III.c Q & A Fill in C-CSRO to evaluate their attitude towards CSR after the intervention.	6:20 - 6:35 pm 15 min.	
Total estimated time for the intervention	7 hours	



### **Activity I Pre-field visit**

Four writings in Chinese of about three hours' reading load will be disseminated to the X group one week before the visit. Participants are expected to read these materials at their own time beforehand. The writings cover some background knowledge on CSR and a real case of how it is implemented. This is mainly a knowledge based activity that aims to develop the participants' cognitive competence and raise their CSR literacy.

### Activity II Visit to the Eaton Hotel

The Eaton Hotel is a four star hotel in Hong Kong that belongs to the Langham Hospitality Group. It is chosen as the site to visit because they have pronounced achievements in CSR, especially in the areas of environmental protection and support to NGOs/charitable organizations. Their efforts have been recognized by a number of awards they received such as five continuous years' award of the Gold Certification from EarthCheck; the Hong Kong Awards for Environmental Excellence 2013 - Sectoral Awards (Hotels and Recreational Clubs) - Gold Award, "Class of Good" Wastewise Label and Energywise Label, and the Best Eco Hotel in Hong Kong from the Hotel Club in 2012.

# Activity II.a

On the day of the visit, participants will first gather at a function room of the Hotel. The researcher will kick off the activity with an introduction on some background knowledge of CSR and its brief history that provides additional information to the pre-visit readings.



### Activity II.b

A second talk will be delivered by the Director of the Fullness Christian Vocational Training Center (Fullness). Fullness is a social enterprise (SE) that was established in Hong Kong in 1988. SE are not NGO, rather they are profit-making businesses trying to solve specific social problems with unique business models (Dees, 2001). They stem from the CSR root but have a different approach in fulfilling their social missions. In fact both CSR and SE can be regarded as fruits of the same tree (Page & Katz, 2011).

Fullness has its own car depots and hair salon businesses. It employs deviant youths as apprentices, and some may have already completed their sentences. Apart from giving them opportunities to acquire vocational skills and earn their living, Fullness assigns mentors to each apprentice to give them moral and emotional support as well, so as to help them regain confidence in life and reintegrate into the society. Besides introducing to the participants Fullness as a business operator the kind of social benefits it can bring, the speaker will share with the participants its success stories of rehabilitating these youngsters. The real life stories of these deviant youths probably stand a good chance to arouse the participants' ethical sensitivity and volitional insights, or perhaps even their compassion to their less privileged peer groups. At the end of the talk students will be given the opportunity to raise questions and interact with the speaker.

#### Activity II.c

Two CSR project officers of the Hotel will deliver talks on how CSR is being conducted as part of their business operation. The nature of this activity is more cognitive/knowledge



based, but simultaneously it demonstrates the Hotel's managerial competence in fulfilling CSR. Again, at the end of the talks, questioning time will be scheduled for students to interact with the speakers and reinforce their learning experience.

### Activity II.d

Participants will be split into two groups for a site tour and each group will be guided by the CSR staff from the Hotel. Students will be able to observe various green measures and facilities e.g. different energy saving devices installed in the rooms and lobby. The staff from Eaton will explain how the hotel has recycled waste and leftovers in the kitchen, and other sustainable work practices e.g. instead of purchasing water pre-bottled in plastic containers for their guests, the Hotel has set up a system in-house to fill filtered water from the tap in reusable glass bottles. This has not only promoted environmental protection but can bring forth cost cutting advantage to the Hotel. The participants can raise questions to the accompanying Hotel staff during the tour.

CSR in fact is not only an integral part of Eaton's organizational goal, culture and behaviour, but also a strategic asset of the Hotel. These success stories of Eaton to translate and apply ethical concerns into planned organizational practice is a good role model to demonstrate how CSR can be operationalized in real business context which aligns well with Rossouw's (2002) notion of managerial competence.

### Activity III Servicing experience at Soap Cycling (再皂福)



Findings of the literature review in Chapter 2 have clearly established the benefits of experiential learning, and service learning in particular, for attitude development. In activities I and II, participants will only play the roles of audience and observers and do not have a chance to directly take part in CSR activities. In view of this a service learning opportunity will be arranged for the participants with Soap Cycling, an NGO and CSR partner of the Eaton Hotel, so as to provide more all-rounded learning experience to the participants. Immediately after the hotel visit, the participants will travel to Soap Cycling on a pre-arranged coach.

### Activity III.a

Soap Cycling is a first NGO of its kind in Asia that aims to improve sanitation and hygiene for underprivileged groups. It partners with many hotels in Hong Kong to collect from them slightly used soap. The soaps will be dried and Soap Cycling will recover the used soap into sterile and safe-to-use conditions. The recycled soap will then be sent out to disadvantaged communities in different parts of the world where soap is not quite affordable. Staff from Soap Cycling will first brief the participants on their organization mission and work. After that the staff will give instructions on the work process to recover used soap into re-usable form.

#### Activity III.b

About 5 to 6 participants will form into one small group to process the dried soaps with tools provided. They will be equipped with gloves and masks so as to enhance safety and hygiene of their working conditions. This activity will not only provide the participants some first-



hand CSR servicing experience under a genuine milieu, but as a potential hotel customer perhaps they can also be invoked to think about how their consumption behaviour can create environmental waste and how the hotel as a business operator can step in to turn such wastes into resources again.

# Activity III.c

At the end of the servicing activities, Q&A time will be given for participants to raise questions so as to strengthen their learning experience. After that participants have to give post-intervention responses by filling in C-CSRO immediately on-site. This part requires the participants to recollect their experience of the intervention and rethink their CSRO again after going through the process.

# 3.2.3 Participants

Participants were recruited from a two years' full-time Associate in Business (Business Management) programme provided by the Hong Kong Community College (HKCC), an affiliated organization to the Hong Kong Polytechnic University. Since its establishment in 2001, HKCC has already grown into one of the three leading sub-degree programme providers in Hong Kong in terms of its student numbers and its graduates' consistently high articulation rate to senior places of degree programmes. As a reference, 85.2% of its 2014-15 cohorts of graduates were articulated to bachelor's degree programs. For those who were admitted to local educational institutions, 51.4% secured senior year places at UGC funded



universities. The outcomes of this study, therefore, are not just meaningful to sub-degree students but may also be relevant to university students in their junior years.

Basically all Yr. 1 and 2 students who have enrolled with a two year Associate Degree programme in Business Management (BM) of HKCC can join the activity. In order to minimize confounding influences from demographic variations, only BM students who are Chinese in ethnic origin and possess Hong Kong permanent resident (HKPR) status, aged below 23 (age at or above 23 years old is regarded as mature student according to HKCC rules) are eligible to participate in the intervention.

In order to reduce self-selection bias, about four weeks before the intervention took place the event was promoted to the students as a hotel visit and one of their many co-curricular activities only. Also the CSR theme of the activity was not disclosed beforehand. After students had signed up for the activity, the theme of the activity was announced and they were aware that they had the right to withdraw if they wanted to, although no one did so. Those who signed up for the activity and satisfied the demographic requirements were in the Experimental (X) group, and those who did not join the activity and satisfied the demographic requirements were automatically in the Control (C) group. As far as the basic demographics of academic program, age range and ethnic origin are concerned, the participants' profiles should be rather homogeneous.

There were altogether 183 students enrolled with the BM programme, with 91 students in Yr.1 and 92 in Yr.2. The researcher did not teach any Year 2 BM students and only taught around 20 out of the 91 Year 1 BM students at the time the intervention was administered. It was known to the students that joining or not joining any co-curricular activities, even being



organized by the teacher, would not affect their grades performance in any way. After excluding all unqualified samples based on age, ethnic origin and permanent resident status, there were 82 students in the X group and 83 in the C group; i.e. 90.2% of all BM students participated in this study. Detailed breakdown of sample size by personal attributes and by groups can be found in Chapter 4.

# **3.2.4** Data collection procedures

All pre intervention data were collected before the activity was promoted to the students. The researcher went to individual classes where Yr. 1 and 2 students of the BM programme attended. A standard script explaining the aim of the study was read to the students in all occasions and the questionnaires (C-CSRO) were distributed to students for self-completion on-site. The front page of the questionnaire spelt out the identity and contact details of the researcher and supervisor, purpose of this study etc. (Appendix A). Response was anonymous and students were fully informed that they had the freedom to fill in C-CSRO or not. By choosing to fill in the questionnaires voluntarily, students indicated their consent to join the study.

Post intervention data were also self-reported, the X group would fill in the C-CSRO immediately after they have finished with their last activity of the intervention at Soap Cycling as noted under Activity III.c of 3.2.2. For post-test C group the researcher would collect their responses on the next two days following the completion of the intervention.



### 3.2.5 Method for data analysis

In this experiment the independent variable is the intervention; the multiple dependent variables are the four CSRO dimensions of: Economic, Legal, Ethical and Discretionary; the two time points are the pre and post intervention. When measurements are taken on the dependent variables at two successive points in time, comparison among groups can be made. Repeated measures (RM) multivariate analysis of variance (MANOVA) will be used to assess the relationship between the categorical independent variable and the multiple interval dependent variables. Details of the model variables involved in statistical analysis are reported in Chapter 4.

MANOVA is a robust and flexible alternative to the traditional mixed-model analysis while little power is lost (O'Brien & Kaiser, 1985). Besides, it can detect differences among groups on multiple dependent variables simultaneously with better control for TYPE I error when compared with multiple t tests, (Hertzog & Rovine, 1985; Keselman et al., 1998). MANOVA is preferred when the research purpose is to "identify outcome variable system constructs, to select variable subsets, or to determine variable relative worth" (Huberty & Morris, 1989, p.301). In sum it is regarded as a good statistical tool to measure developmental changes (Keselman et al., 1998) making it an appropriate statistical choice to address the research question and the objective of this study.

#### **3.3** Scale development for C-CSRO



Chapter 2 concluded that E-CSRO was an appropriate choice of measurement scale for this research. Approval for using E-CSRO was granted by Professor Aupperle (Appendix B) and a copy of E-CSRO with 15 question sets was given by him (Appendix C). As the source language of E-ECSRO is English whereas the participants are not English native speakers, it is risky to assume that E-CSRO can be fully comprehended by them. In view of this a Chinese version of E-CSRO has to be developed. Section 3.3.1 first describes the procedures in reviewing and adapting E-CSRO into a form that is more relevant to the local situation in Hong Kong. Section 3.3.2 summarizes some commonly used methods and practices in translating measurement scale; Section 3.3.3 delineates the steps to be taken in translating E-CSRO into Chinese (C-CSRO) up to collection of empirical data. Section 3.3.4 elaborates on the two statistical methods that are used to validate C-CSRO. Section 3.4 reports on the data analysis and validation results of C-CSRO.

# **3.3.1 Refining E-CSRO before translation**

### 3.3.1.1 Devising 13 sets of item statements

Before E-CSRO was translated into Chinese, it was scrutinized to ensure its suitability for the cultural and situational context in Hong Kong. In the original E-CSRO there are 15 questions, each has four statements attached to it, and each statement in turn corresponds to one of the four CSRO or CSR dimensions of Economic, Legal, Ethical and Discretionary. In 2000, Burton et al. selected 13 questions out of the 15 from E-CSRO and applied to a group of Chinese university students in Hong Kong. The researcher obtained a list of questions from Professor Burton (personal communication with Professor Burton dated November 19, 2011)



and found that questions 7 and 15 in the original E-CSRO were not there. Question 7 has a statement on discrimination of other ethnic minorities, and question 15 has a statement that touched on the idea of "whistle-blowing". The issue of discrimination on ethnic minorities in Hong Kong perhaps is getting to become a controversial topic, but seemingly "whistle-blowing" has less social relevance in a predominantly Chinese culture like Hong Kong as compared to the West. Since it is beyond the resource capacity of this study to investigate indepth of their social relevancy to Hong Kong, following what Burton et al. (2000) did, Question 7 and 15 will remain excluded. The remaining questions appear to be socially relevant to Hong Kong and are kept. In other words 13 questions from the original E-CSRO are to be used.

The researcher together with an English language teacher, who has expertise in applied translation, reviewed the content of these 13 question sets again. During the course of this process special care and attention was paid to identify what Sperber (2004, p. s125) described as "problem of ethnocentricity" or "cultural hegemony in cross-cultural research" while at the same time maintaining literal integrity of the original instrument. Both reviewers agreed to fine-tune slightly certain words/phrases (*as italicized*) in E-CSRO, so that the measurement scale could better align to the local situation and become more comprehensible by a Chinese layman in the community. The adjustments include: Question 5 statement A "provide assistance to *private and public education* institutions" into "provide assistance to educational institutions that are in need"; Question 7 statement B "compliance with *local, state,* and *federal* statutes" into "compliance with statutes"; Question 12 statement B "compliance with various laws and regulations"; also question 12 statement C "assist the *fine* and performing arts" into "assist



the arts and performing arts". After that a refined E-CSRO with 13 questions was derived (Appendix D).

## 3.3.1.2 Revising the instruction

In Aupperle's (1983) E-CSRO, the instruction appeared somewhat brief and it was not known whether supplementary verbal instructions were given before the survey. Hence, the instructions were slightly elaborated so as to explain the requirements to the participants. When carrying out this task, due care was exercised not to influence the content equivalence of the original instrument. The output underwent peer review by a language teacher, and the revised instruction in English can be found in Appendix D.

# **3.3.2** Methodology and methods for translation

It is always difficult, if not impossible, to achieve complete semantic and content equivalence between the source and the translated measurement scale. Yet faulty or inadequate translations can risk contaminating the outcome, ending in a "garbage-in and garbage-out" situation that may even invalidate the outcome (Brislin, Lonner & Thorndike, 1973; Hansen & Fouad, 1984; Prieto, 1992; Sperber, 2004). Despite such challenges, the anticipated benefits of using a valid and reliable translated instrument justified the process of its development. This Section summarizes some established methodological approaches and good practices in translating measurement scales that shed light on how E-CSRO can be translated into Chinese (C-CSRO).



Three major translation methods are identified. The first was the Brislin Model (1970) that involves the actions of forward and backward translation and is supported by numerous scholars (Fouad, Cudeck & Hansen, 1984; Hansen, 1987; Prieto, 1992). The succinct steps of the Brislin approach can be condensed into: i) forward translate from source to target language by a skilled translator, ii) back translate blindly from the target back to the source language by another skilled bilingual translator, iii) compare between the original and backtranslated document to reveal questionable items and then repeat several rounds until a mutually agreed translation emerged; iv) subject the instrument to field-test by bilingual samples in both languages; v) assess equivalence and convergent validity between the source and target document by statistical analysis (Brislin, 1970; Hansen, 1987; J.S. Carroll et al., Holman, Sergura-Bartholomew, Bird & Busby, 2001; Lee, Li, Arai & Puntillo, 2009).

The second method is the Serial Approach (SA), supported by Herrera, DelCampo and Ames (1993). The key steps to be taken in this approach include: i) translate by two or more translators independently who are aware of the sociocultural context of the target population and can discuss each other's work for an agreed version; ii) assess clarity and equivalence of their translation by getting direct input from representatives of the target population; iii) back-translate the instrument by non-professional translators of varying educational levels; iv) assess content and face validity of the output by the different translators; v) field-test the translated scale with both mono and bilingual groups; vi) evaluate and interpret the results (Herrera et al. 1993, p. 358-359).

Both the Brislin Model and the Serial Approach (SA) support a reiterative methodology in translating measurement instruments. The SA in particular highlights the benefits of teamwork and the employment of unskilled translators. Also grounded upon a reiterative and



team approach, the third method is a Modified Serial Approach (MSA) suggested by J.S. Carroll et al. (2001). The MSA incorporated a committee mechanism at different stages of the translation process, also bringing in unskilled people as back-translators. In essence the MSA involves: i) translation by a team of skilled members who are working independently, reviewing each other's work and coming up with an agreed version; ii) assessing clarity and equivalence of the instrument with samples from the target population; iii) back translating the translated instrument by persons of varying educational background; iv) team reviewers assessing the output on face and content validity and determining if any modification is needed; v) field testing with mono and bilingual groups; vi) evaluating and interpreting (J.S. Carroll et al., 2001, p.221-224). It is worth noting that J.S. Carroll et al. (2001) suggests the use of bilinguals who are native to both the source and target languages to take up the tasks of translating, back-translating and field-testing. Besides, the MSA is "most applicable to cultural settings where both native's source language bilinguals and native target language bilinguals are readily available...." (J.S. Carroll et al., 2001, p. 226) and such a condition can be found in Hong Kong.

These three translation methods of the Brislin Model, SA and MSA clearly converge on a serial and reiterative approach. The second method (SA) and the third method (MSA) especially, support the incorporation of team efforts to produce an optimal translation output. Different scholars, however, seem to hold different preference as to the choice of translators. Skilled professionals possess the technical competence as translators or back-translators but they may lack the socio-cultural sensitivity to appreciate the background of the target population (Herrera et al., 1993). Also, their professional expertise could put them at risk to improve inadequately translated documents by making undue inferences when back-translating (J.S. Carroll et al., 2001; Herrera et al., 1993; McKay et al., 1996). The remedy is



to use non-professional bilinguals of different backgrounds, especially as back-translators (Herrera et al., 1993, J.S. A.B. Carroll et. al., 2001; Hui, Kennedy & Cheung, 2006; Hyräks, Appelqvist-Schmidlechner & Paunonen-Ilmonen, 2003; Hui, Kennedy & Cheung, 2006). Other than this, it is evident that a committee approach is often used to obtain team consensus and improve content validity of the translation (Barata, Gucciardi, Ahmad & Steward, 2006; Herrera et al., 1993; McKay et al., 1996; Ponce et al., 2004).

Summing up, the literature on cross-cultural translation of measurement instrument reveals that no single translation method is universally applicable to all situations. The complexities and uniqueness of different research settings require modifications. On the whole the literature clearly converges upon a reiterative methodology, i.e. a serial actions process to translate, back-translate and review. These practices will also be adopted when translating E-CSRO into Chinese. To avoid possible pitfalls caused by skilled professionals, all translators and back-translators employed in this study will be competent bilinguals but non-professional translators of different backgrounds. All of them should have had solid exposure and understanding to the socio-cultural specificities of the target population. Besides, an interactive approach i.e. the deployment of team work will also be used. Team consensus will be weaved through the whole translation process of E-CSRO. At any one step there will be more than one bilingual translator/back-translator/reviewer taking up the respective jobs. Discussion among these parties on words, phrases and social relevance of the items, can greatly enhance content equivalence and socio-cultural relevance of the C-CSRO. Overall, by adopting and embedding these established methodologies and good practices in translating E-CSRO into C-CSRO, it is expected much literal, semantic and conceptual equivalence between the source and translated scale can be retained and a more optimal output can be attained.



# **3.3.3** Steps in obtaining C-CSRO for validation

Figure 3.2 outlines the key steps in translating E-CSRO into Chinese (C-CSRO), refining and confirming its content clarity, up to the point to collect empirical data for statistical testing and validation of the measurement scale C-CSRO.



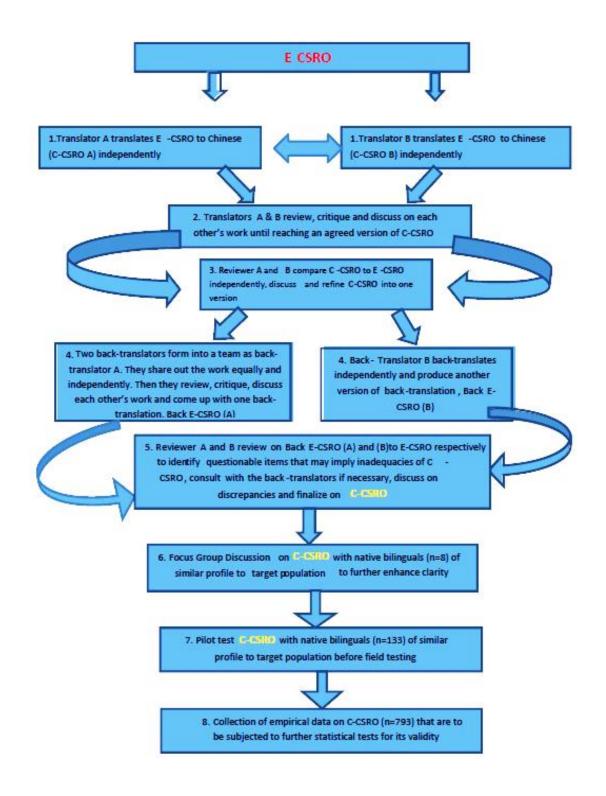


Figure 3.2. Steps in Obtaining C-CSRO up to Data Collection for Validation



#### Steps 1 and 2: Translating E-CSRO into Chinese (C-CSRO)

Translator A is a business professional and ex-teacher in business subjects at tertiary level with two Master Degrees, one in law and the other in banking and finance. Translator B is a seasoned copywriter for advertising agencies with a Bachelor Degree in Journalism who should also be acquainted with the situational context of the target population in some extent because her two children belong to the same age group. Both of them were thoroughly briefed on the intent and conceptual framework used in this study and they were fully aware of the social and human contexts in which C-CSRO was to be applied. They translated E-CSRO independently into two Chinese versions, C-CSRO (A) and C-CSRO (B). After that they reviewed and critiqued on each other's work and made recommendation for adjustments where necessary. On the whole, translators A and B were able to reach an agreed version of C-CSRO in consensus without much contention.

### Step 3 Assess face and content validity of C-CSRO

After obtaining a draft translation of C-CSRO, it was then subjected to assessment by two reviewers, A and B. Reviewers A and B compared C-CSRO to E-CSRO independently. Reviewer A has a BA degree specializing in teaching English as a second language and a MA degree in applied linguistic, who is currently teaching English at a tertiary level college. Reviewer B is the researcher who has two Master Degrees in business disciplines, and is very experienced in teaching business subjects at tertiary level. Both of them understand the cultural specificities of the target population well.



To facilitate the reviewers in assessing the level of compatibility between C-CSRO and E-CSRO, the whole instrument was broken down into 48 distinguishable parts, including 3 parts for the survey instructions, 5 parts for each question set (i.e. the question itself plus the four statements attached to it), giving an overall 3 + 13x5=48 parts. The reviewers then compare each part in C-CSRO against E-CSRO. A three point scale was adopted (Flaherty et al., 1988, p.260) by the reviewer as a basis for assessment where 3= exactly the same meaning in both versions, 2= almost the same meaning in both versions, and I= different meaning in each version. Out of these 48 parts, Reviewer A ranked 39 parts at 3 (exactly the same meaning) and 5 parts at 2 (almost the same meaning); and no parts were ranked at I (different meaning) by both reviewers. For those parts that received a ranking of 2, only one case was ranked at 2 by both reviewers, the rest are all 2-3, indicating a high level of compatibility in meaning between C-CSRO and E-CSRO.

Statement A in Question 1 was the worst case scenario where both reviewers gave a score of 2 after comparing this statement in C-CSRO with the original statement in E-CSRO. Further examination found part of the original statement is "expectations of maximizing earnings per share" was being translated into "替股東賺取最大盈利的期望". This Chinese translation when back-translated word-to-word into English could become "expectations of maximizing returns for shareholders". Having consulted translators A and B, it was found that a word to word translation on "earnings per share" might sound too technical, and they agreed "returns for shareholders" actually conveyed the same meaning but in a more generic tone. Apart from this, Reviewers A and B consulted with translators A and B over some other minor changes so as to improve the overall grammatical and semantic adequacies of the translation output.



### Step 4: Back translation of C-CSRO

After the review process was completed, C-CSRO was then back translated by two different parties. Two Associate Degree business program graduates of the Hong Kong Community College who were in their final year at the University of Hong Kong and the City University, worked together as one back-translator A. They first shared the translation work equally and independently. Then they reviewed and discussed each other's work and moderated the outputs if necessary. Finally they came up with one version of the back-translation, Back-E-CSRO (A). As the two undergraduates belong to the target population this enables them to interpret C-CSRO through the appropriate social lens. Also since they are close friends they can have more open communications in critiquing each other's work, henceforth strengthening the overall quality of their output. The other back-translator B was a teacher in English language at tertiary level with a Master's Degree qualification and over twenty years of teaching experience at tertiary level. She back-translated C-CSRO (B).

# **Step 5 Compare back-translations**

Reviewer A and B compared E-CSRO to both Back-E-CSRO (A) and Back-E-CSRO (B) independently. Again Flaherty et al.'s (1988) three point scale was used to express any discrepancies. They could ask for clarifications with the back-translators if needed. Any discrepancies found between E-CSRO and the two back-translations could indirectly show inadequacies of the C-CSRO. Results indicated that the vast majority of the items received a 3-3 scoring from both reviewers, only a few were ranked at 2 by either one reviewer, and



none was ranked at 1. Items that were ranked at 2 were examined so as to ascertain whether the discrepancies were due to inadequacies of the C-CRO or it was in fact due to inadequacies of the back-translators. It was found that the discrepancies were minor and did not require further adjustment. Yet it was intriguing to notice that back-translator B, a very experienced English language teacher who is supposed to be more technically competent, received more rankings at 2 for her work than the version translated by the two university undergraduates who back-translated jointly. A closer examination on the translation output done by back-translator B revealed that back-translator B has exercised more discretion in the interpretation of the literal meaning of C-CSRO during the process of back-translation, and aimed less at an output that closely followed the phrasal structure of the source scale. This actually echoed what was mentioned under Section 3.3.2 that professional translators might be at risk by making undue "improvement" when back-translating (Herrera et al., 1993, McKay et al., 1996; J.S. Carroll et al., 2001). The employment of non-professional translators i.e. the two undergraduates in this case, in fact was remedial and beneficial. With stringent steps taken in the whole translation process, a version of C-CSRO is seen to be culturally relevant and possess strong literal equivalence to its source scale E-CSRO.

### Steps 6 Focus group discussion

A cognitive test via focus group was performed with the purpose to assess the perceived content clarity of C-CSRO. The group was composed of eight Associate Degree students who majored in corporate communications. The cultural background, academic level and age profiles of the students were similar to the target population, except that they were not



business students. Yet their academic specialism gave them the advantage in examining C-CSRO with a higher linguistic sensitivity.

Students were asked to complete C-CSRO and give comments. In particular they were asked if "they can fully understand the instruction of the questionnaire", "what does each item mean to them", "can they fully understand the meaning". Some small yet constructive suggestions were raised so a few wordings of C-CSRO were fine-tuned. Overall, the focus group reckoned the question sets of C-CSRO were straightforward in meaning and easy to understand.

# **Step 7 Pilot run of the survey**

Approval was obtained from the Head of Business Division of HKCC to collect data using C-CSRO from some business students. A pilot run of the survey was first conducted. The researcher went to different classes based on a pre-arranged schedule with colleagues and asked the students to fill in C-CSRO. This step was a trial run in the data collection procedure and at the same time to further ensure the respondents could comprehend C-CSRO without difficulty. During the course, only some minor issues were raised, but other than these the students did not encounter problem in completing C-CSRO.

Step 8 Collection of empirical data



Data for the validation of C-CSRO was collected within one week from 19 class sessions, with 872 Yr.1 and Yr.2 students from various business programs as samples. The students were asked to complete C-CSRO during borrowed lessons' time. Since this involved the researcher and seven other teaching staff, to ensure consistencies in the implementation process, all parties followed standardized protocols and read out the same scripts prepared by the researcher to the respondents before the survey commenced. On the front page of the C-CSRO it specified the purpose of filling in the questionnaire and contacts of the researcher, and students have the right not to participate. Students were not required to disclose their names and student ID number so their responses were kept anonymous; this should discourage them from giving "socially correct" responses. Summing up, steps 1 to 8 have broadly outlined the steps taken and methods used in obtaining a refined version of E-CSRO and translated it into Chinese (C-CSRO).

#### 3.3.4 Validation methods for C-CSRO

Altogether 872 responses were collected which were first subjected to data screening, and then split into two halves as Sample 1 and 2 randomly by SPSS V. 21. Sample 1 was subjected to Exploratory Factor Analysis (EFA) using Principal Component Analysis (PCA) for data extraction and Varimax data rotation. Sample 2 was subjected to Confirmatory Factor Analysis (CFA) using maximum likelihood as the estimator procedure. Constructs validity of C-CSRO are then be evaluated from different angles so as to ensure its questions and statements contained therein measures the four CSRO as intended, and that it is replicable in a Chinese sample. All statistical results in validating C-CSRO are reported in the subsequent Sections 3.4.



#### 3.3.4.1 Exploratory Factor Analysis

In developing and validating E-CSRO, Aupperle et. al. (1983) employed an Exploratory Factor Analysis (EFA) with Principal Factor Analysis (PFA) as the method for data reduction. EFA is more of an inductive approach that assumes the scale under study is an entirely new measurement instrument with no prior knowledge of its conceptual basis, and the factor structures are latent (Brown, 2006). PFA as a data extraction method can explain correlations and covariances, condense a large number of observed variables to reveal a smaller number of latent factors and causal structure (Cody & Smith, 2006; Worthington & Whittaker, 2006). Sometimes the outcome can even suggest whether the model has to be changed (Velicer & Jackson, 1990). In other words, PFA is more exploratory and diagnostic that suited the need to discover constructs when their nature is still very much unknown (Goldberg & Digman, 1994). When Aupperle (1982) developed E-CSRO, A.B. Carroll's four CSRO was used only as a guiding framework upon which a large number of statements or item variables were developed. In other words E-CSRO at that time was still a completely new scale with no prior knowledge which item variables could best measure the four CSRO proposed by A.B. Carroll's (1979) framework. As such PFA was an appropriate choice for data reduction. Yet in the present situation C-CSRO was a translated output from a well-established and validated scale of E-CSRO that in turn was based upon a priori theory and have known underlying dimensions. Under such circumstances using Principal Component Analysis (PCA) as a data extraction method has certain advantage over factor scaling by eliciting the number of key factors to account for as much variance as possible (Kim & Mueller, 1978). PCA is a variant of factor analysis which does not only focus on communality variance, but analyzes unique variance specific to individual variables (Kahn, 2006). It reduces the dimensionality of the data into a few principal components while maximizing most of the



variations, therefore each sample can be represented by relatively fewer variables and making it possible to plot samples and determine by visual inspection whether samples can be grouped (Ringnér, 2008). Such a data extraction strategy has the advantage of generating slightly higher loadings (Velicer, Peacock & Jackson, 1982) and could help identify factor structure more distinctively. The two data reduction procedures of PCA and PFA normally rendered similar results, and the practical differences of the results obtained from PCA and PFA were in fact minimal and negligible (Cliff, 1987; Thomposn, 1992 Velicer & Jackson, 1990).

With regard to data rotation, Varimax rotation means was used. During the process of Varimax rotation, a 90 degree angle between two factors is kept, as such the rotated factors remain orthogonal or uncorrelated. So a Varimax rotation strategy can maximize variances and tends to make higher loadings higher and lower loadings lower, i.e. giving a cleaner and clearer result that can assist to make the more dominant factor structure stands out as well its discriminant validity (Worthington & Whittaker, 2006). C-CSRO comes from a measurement scale with a well-defined factor structure. The purpose here is to confirm whether the underlying dimensions of the item variables align with the factor structure of E-CSRO instead of exploring into some unknown collinearities among a range of new variables. Varimax rotation can provide more interpretable results thus making it a viable choice.

## 3.3.4.2 Confirmatory Factor Analysis

The factor retention criterion of EFA depends on conceptual interpretability of the factors, making the conclusions being drawn from an EFA somewhat heuristic (Hair, Black, Babin, Anderson & Tatham, 2006). PCA as a variant of EFA carries similar limitation and is not



sufficiently revealing. In order to further legitimize C-CSRO as a valid factor scale, a Confirmatory Factor Analysis (CFA) on the C-CSRO model was needed. CFA can investigate the underlying factor structure and replicability of a model in a certain sample thus able to confirm the modeling of factor relationships in a more mathematically defensible manner (Hoyle, 2012). CFA is another class of factor analysis using a deductive approach and is most appropriate to use when a priori theory exists and a well-developed measurement instrument of good factorial validity is already established. It involves a hypothesis testing procedure and can tell in what extent the measurement model is replicable in the sample data (Brown, 2006). These pre-requisites are applicable to the C-CSRO model which is a Chinese translation from a well validated measurement scale with known number of underlying dimensions. Maximum Likelihood (ML) is an estimation procedure (Bollen, 1989) used in CFA here. ML has proven to be a stable statistical method to estimate CFA models especially in situation when sample size is reasonably large (Jackson, Gillaspy Jr., Purc-Stephenson, 2009). Statistical results on reliability, correlational and EFA for Sample 1; and CFA outcome for Sample 2 will also be reported in the sections below.

#### 3.4 Validation Results of C-CSRO

This Section reports on the validation outcome for C-CSRO and is divided into three parts. Section 3.4.1 first reports results of the sample data after going through data screening to check for its adequacy. The samples are then split into Sample 1 and Sample 2. Section 3.4.2 reports on the reliability and correlational statistics for Sample 1 and the results obtained from Exploratory Factor Analysis. Section 3.4.3 are the results for Sample 2 after being subjected to Confirmatory Factor Analysis.



#### 3.4.1 Data Screening

#### 3.4.1.1 Missing data

Some invalid responses were found from the questionnaires returned. There were three kinds of invalid responses: total scores per question set exceeded 10; a mix of scores with decimal place and integers were reported in the same question set; and incompletion of responses. Out of all the questionnaires that contained invalid responses, 15 cases had over 50% of its total responses missing/invalid and would be totally excluded. 64 cases have 50% or less of their responses missing/invalid and such responses did not appear to cluster on a specific statement or question.

Based on the typology originated by Rubin (1976) and interpretation by Schafer and Graham (2002), there are three possible patterns of missingness depending on whether such pattern is by random or systematic. First is missing completely at random MCAR i.e. probabilities of missingness do not depend on either the observed and missing data of the respondent nor those of the others; second is missing at random MAR i.e. probabilities of missingness can be due to observed data of the respondent but not on the other's missing response, and responses with MAR missing data do not deviate systematically from the ones without missing data when there are commonly observed characteristics e.g. similar income range; third is missing not at random NMAR i.e. distribution of missing values is systematic and depends on the missing value itself. Although missing data may reduce statistical power of the data, both MCAR and MAR are regarded as ignorable nonresponses and supposedly they do not bias on parameter estimates (Graham, 2009).



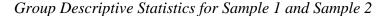
Size and distribution of the missingness in this case were considered. The data were subjected to Shapiro-wilk test with sig. level at .00 which is <.05 indicating statistically the missingness might not be completely at random (MCAR). The "missingness" in this case were examined and revealed that they were due to non-compliance of the instruction which was independent from other missing responses, so arguably missingness in this case is more likely to fall under the MAR pattern instead of a MNAR pattern. In a MAR pattern of missingness, listwise deletion is found to be a commonly used (Roth, Switzer III, & Switzer, 1999) and an acceptable way to tackle the situation (Musil, Warner, Yobas & Jones, 2002). Generally speaking missing data within 10% on a variable can be considered as small (Cohen & Cohen, 1983). With about 7% of the total number of cases contains some kind of missing responses, a complete case analysis strategy is resorted to purge missing data and ends up with N=793.

#### 3.4.1.2 Data adequacy for factor analysis

The data was split into two halves randomly by SPSS V.21 with Sample 1 (N= 396) and Sample 2 (N= 397) Table 3.2 shows the mean scores of the two Samples, and Table 3.3 shows results of the T-test on means scores of the two Samples which indicate no significant differences on the four dependent variables between the two groups.

Table 3.2.

	Sample	N	Mean	Std. Deviation
Mean Economic	1	396	2.71	1.075
Mean Economic	2	397	2.80	1.28
Maandaaral	1	396	2.48	.650
Mean Legal	2	397	2.42	.680





Maran Ethical	1	396	2.42	.664
Mean Ethical	2	397	2.42	.760
	1	396	1.64	.633
Mean Discretionary	2	397	1.66	.662

# Table 3.3.

Independent T-test for Equality of Means of Sample 1 and Sample 2

-		t-1	est for E	quality of N	leans
		t	df	Sig. (2-	Mean
				tailed)	Difference
Mean Economic	Equal variances	.971	791	.332	.082
Mean Economic	assumed	.071	751	.002	.002
Mean Legal	Equal variances	-1.322	791	.187	062
Mean Lega	assumed	-1.322	791	.107	002
Mean Ethical	Equal variances	013	791		000
	assumed	013	791	.989	000
Mean	Equal variances	222	791	.747	015
Discretionary	assumed	.323	791	.141	.015

The data were then subjected to Kaiswer-Mayer-Olkin test resulting in .664 and .731 for Sample 1 and Sample 2 respectively; and KMO exceeding .6 is the recommended value (Kaiser, 1974). Bartlett Test of Sphericity on multivariate normality for Sample 1 shows  $X^2 = 11917.202$ , df = 1326; Sample 2 has  $X^2 = 13515.416$ , df = 1326; in both cases significance p value is < .001, supporting data adequacy and suitability for factor analysis (Barlett, 1954). Sample 1 will be tested on its reliability, correlational strength and subjected to EFA. Sample 2 will be tested on the model fit of C-CSRO using CFA.



#### 3.4.2 Sample 1

#### 3.4.2.1 Reliability and correlational statistics

In general, a Cronbach Alpha of .7 being drawn from substantive samples is demonstrating internal consistency (Nunnally, 1978). George and Mallery (2003) proposed when deciding on internal consistency by Cronbach Alphas, it could be interpreted as  $\geq$ .9 excellent,  $\geq$ .8 good,  $\geq$ .7 acceptable,  $\geq$ .6 questionable,  $\geq$ .5 Poor, and  $\leq$ .5 unacceptable. Flaherty et al. (1988) purported that in situation to test a modified instrument, an alpha coefficient greater than .60 can be regarded as satisfactory. Cronbach Alphas are strong for Sample 1: Economic .903, Legal .824, Ethical .776, Discretionary .830, suggesting high internal consistencies and reliability in C-CSRO.

Table 3.4.

Pearson Correlation of Variables in C-CSRO (N=396)

	1	2	3	4
1.Economic	-	411***	510**	421***
2.Legal		-	.109*	144**
3.Ethical			-	.075
4.Discretionary				-

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

\*. Correlation is significant at the 0.05 level (2-tailed).

Pearson correlations of the C-CSRO variables are shown in Table 3.4., which indicate that the strongest correlations are those between Economic and the three non-economic dimensions, from -.510 to -.411. Given their opposing nature, a distinctive and negative correlation is expected. For the three non-economic CSRO of Legal, Ethical and Discretionary, it is possible for them to compete for attitudinal scores in a forced choice scale



situation, this explains the relatively weaker Pearson *r among* them i.e. Legal/Ethical .109, Ethical/Discretionary .075 and /Legal/Discretionary -.144. As a crude comparison, Pearson scores of C-CSRO are actually quite comparable in terms of direction and magnitude, with those obtained from studies by Aupperle et al. (1983) and Burton et al. (2000) (Table 3.5).

#### Table 3.5.

Correlations of CSRO variables in E-CSRO (Aupperle et al., 1983)/ Burton et al., 2000)

1. Economic      48***/-0.351***      71***/-0.564***      47***/56         2. Legal       -       .13*/0.086       .04/19         3. Ethical       -       .25**/.2	
	52***
3. Ethical25**/.2	)8***
	37***
4. Discretionary -	

### 3.4.2.2 Results on Exploratory Factor Analysis

SPSS Version 21 was employed to perform factor analysis on Sample 1. Scree Plot Test (Figure 3.3) shows starting from factor five there is a clear twist in the slope leading to a kinked curve, implicitly though not conclusively, we can interpret this data set has embedded at least four distinctly identifiable factors (Catell,1966; Gorsuch, 1983). The first four factors that have an initial Eigenvalue greater than 1 altogether explain for 40.255 % of the total variance of the item scores.



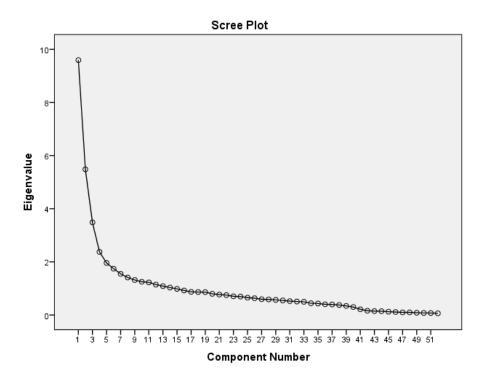


Figure 3.3. Scree Test of C-CSRO

Table 3.6 shows item factor loadings together with their communalities. Following a similar and more stringent cut-off point of .4 adopted by Aupperle (1982) to extract factors, it was found excluding the cross-loadings, at least 28 item variables directly loaded on the first four components that have a correlation coefficient  $\geq$  .4. Distribution breakdown of these variables are: Component one - 11 items on Economic; Component two - 8 items on Discretionary; Component three - 4 items on Ethical; Component four - 5 items on Legal.

A few cross-loadings were identified and highlighted in Table 3.6. Under the component of Economic, there are two negative loadings from the Ethical dimension; similarly under the third component (the Ethical dimension), there are two negative loadings on Economic. Such an outcome is explainable by referring back to Aupperle's (1982) original work on E-CSRO. In there, Aupperle (1982) came across similar situation and commented that "The dual loading of the economic and ethical components also suggested an additional conclusion. It



was apparent that an inverse relationship existed between the economic construct and the ethical construct. This reflected that as firms placed greater emphasis on their economic responsibilities, they would in turn emphasize less their ethical responsibilities or vice versa. These two components were, to some extent, directly competitive in that focusing on one adversely affected the other." (p. 122)

Communalities can be defined as the variance of a variable that can be explained by the common factors and communality values  $\geq .6$  can be regarded as moderately high (MacCallum, Eidaman, Zhang & Hong, 1999). Most communalities of the item variables here are  $\geq$  .6 with only a few at the range of .549 to .593. Together with a clear component structure that exhibits the four underlying variables, C-CSRO can be regarded as overdetermined and that data being gathered from such a kind of sample should be able to provide more precise factor analytic estimations (MacCallum et al., 1999). According to Gorsuch (1983) when the number of measured variables were high (30 was regarded as moderately high), the reliability scores were high and the analysis contained no variables of low communalities at or below .4, then practically PCA and PFA would converge in their estimates and interpretation. In here C-CSRO has 13x4=52 item variables (N=396); its reliability statistics Cronbach alphas are high with communalities of almost all variables extracted are above .6 with only a few at .5; meaning estimates rendered from PCA should be very close if PFA is used as the data extraction tool. Overall, the EFA results supports a discrete factorial constructs of four predominant dimensions in C-CSRO initially that aligns with a similar factor structure in E-CSRO. It is reasonable to claim that structural validity of C-CSRO as compared to E-CSRO is supported. Concomitantly this also confirms the presence of the four CSR constructs as suggested by A.B. Carroll (1979).



# Table 3.6.

# Rotated Component Matrix of C-CSRO

		Compor	nents		Communalities
	1	2	3	4	
12D Economic	.783				.778
13C Economic	.781				.725
10D Economic	.744				.704
11A Economic	.743				.707
5B Economic	.624				.666
6A Economic	.592				.751
7C Economic	.591				.681
9B Economic	.584				.723
2A Economic	.448		403		.739
4A Economic	.442				.623
13A Ethical	430				.660
2B Discretionary		.745			.642
1C Discretionary		.731			.623
3C Discretionary		.713			.571
6D Discretionary		.658			.664
4C Discretionary		.562			.624
13D Discretionary		.551			.632
5A Discretionary		.521			.555
1D Ethical			.819		.775
2D Ethical			.808		.734
4D Ethical			.590		.630
1A Economic		418	507		.750
6C Ethical			.460		.609
1B Legal				.730	.634
2C Legal				.696	.709
6B Legal				.591	.652
3A Legal				.542	.549
4B Legal				.498	.630
12B Legal				.430	.664
11C Legal					.575
-					.575
9C Legal					
7B Legal					.628
10B Legal					.473
11B Discretionary					.593
7D Discretionary					.578
10A Discretionary		.415			.665
9A Discretionary					.624
3D Ethical					.697
8C Ethical					.709
3B Economic	.436				.711
9D Ethical					.731
11D Ethical					.638
5D Ethical					.630
5C Legal					.572
10C Ethical	401				.652
8B Discretionary					.778
8D Economic					.765
13B Legal					.713
7A Ethical					.709
12A Ethical					.842
12C Discretionary					.700
8A Legal					.670



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## 3.4.3 Sample 2

## 3.4.3.1 Data screening

Sample 2 (N=397) was used to perform a Confirmatory Factor Analysis (CFA) using AMOS Version 21 (Arbuckle, 2012) and Maximum Likelihood (ML) was the estimation procedure. In general a larger sample is preferred for factor analysis study (Kahn, 2006; Velicer & Fava, 1998), as it can lower standard errors and confidence interval thus has higher power to estimate population factor loadings and parameters more precisely (MacCallum et al., 1999; Meyers, Gamst & Guarino, 2013). Given constraints of resources in reality, a basic minimum sample size should suffice (Ding, Velicer & Harlow, 1995; Boomsma, 1987). Comrey (1973) regarded a sample size of N=50 is poor, 300 is fair, 500 is good and 1000 is excellent; while Worthington and Whittaker (2006) suggested 300 is generally sufficient. Loehlin (1992) proposed that in a CFA model of two to four factors under study, sample size should have at least 100-200 cases. There is no definite rule as to the ideal sample size for factor analytic types of studies and certainly no absolute prescribed number for an optimal sample size that is applicable across studies using different statistical methods (MacCallum et al., 1999). With N=397 in this case, the sample size should have reasonably satisfied the basic minimum required for a factor analytic study.

When using Maximum Likelihood (ML) as the estimation procedure, two general underlying assumptions are: continuous data and data normality (Bollen, 1989). On the first assumption of using continuous data, even though C-CSRO uses integer scores and data of such nature



may appear to be an ordered categorical scale (Kaplan, 2000), this kind of a discrete scale with categorical ordinal data, can in fact be treated as continuous in general (Hutchinson & Olmos, 1998).

With regard to the requirement for data normality, there is no definite cut-off value to decide on univariate and multivariate non-normality, but from some common indicators that are used to assess data normality including univariate Kurtosis and Skew, and Mardia's Normalized Multivariate Kurtosis (Bollen, 1989), this can better explain the situation. Standardized kurtosis  $\beta_2$  values  $\geq 7$  may mean early departure from normality (West, Finch & Curran, 1995), and distribution of univariate skewness approaches 2.0 and kurtoses to 7.0 can be regarded as moderately non-normal (Curran, West & Finch, 1996). In this sample Skewness and Kurtosis value mainly falls within the desirable range with very few exceptions (Table 3.7).

#### Table 3.7.

Sample 2 - Mean, Skewness and Kurtosis
--

	Ν	Min.	Max.	Mean	Std. Deviation	Ske	wness	Kur	tosis
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
1A Economic	397	.0	10.0	3.258	1.6459	1.071	.122	2.602	.244
1B Legal	397	.0	7.0	2.583	1.1506	.345	.122	.728	.244
1C Discretionary	397	.0	6.0	1.800	1.0967	.715	.122	.575	.244
1D Ethical	397	.0	7.0	2.021	1.2103	.697	.122	1.031	.244
2A Economic	397	.0	10.0	2.587	1.6374	1.289	.122	3.776	.244
2B Discretionary	397	.0	5.0	1.647	1.0276	.353	.122	148	.244
2C Legal	397	.0	7.0	2.806	1.1344	.065	.122	.497	.244
2D Ethical	397	.0	8.0	2.511	1.2759	.447	.122	1.044	.244
3A Legal	397	.0	7.0	2.592	1.0887	.158	.122	.689	.244
3B Economic	397	.0	10.0	2.526	1.5163	1.325	.122	4.048	.244
3C Discretionary	397	.0	5.0	1.605	1.0617	.484	.122	003	.244
3D Ethical	397	.0	10.0	2.715	1.2676	.848	.122	4.867	.244
4A Economic	397	.0	10.0	2.935	1.6425	1.324	.122	3.560	.244
4B Legal	397	.0	6.0	2.118	1.0043	.234	.122	.579	.244
4C Discretionary	397	.0	8.0	2.060	1.1597	.590	.122	1.521	.244
4D Ethical	397	.0	7.0	2.055	1.1664	.597	.122	1.218	.244
5A Discretionary	397	.0	5.0	1.359	.9791	.706	.122	.739	.244
5B Economic	397	.0	10.0	2.805	1.6296	1.187	.122	3.013	.244
5C Legal	397	.0	6.0	2.329	1.0858	.125	.122	.163	.244



5D Ethical	397	.0	10.0	2.893	1.3326	1.022	.122	4.186	.244
6A Economic	397	.0	10.0	3.001	1.9134	1.513	.122	3.388	.244
6B Legal	397	.0	6.0	2.452	1.0158	211	.122	.316	.244
6C Ethical	397	.0	10.0	2.457	1.2581	.977	.122	5.024	.244
6D Discretionary	397	.0	5.0	1.530	.9668	.215	.122	260	.244
7A Ethical	397	.0	7.0	2.394	1.1293	.233	.122	.603	.244
7B Legal	397	.0	10.0	2.011	1.0972	.780	.122	6.150	.244
7C Economic	397	.0	10.0	3.160	1.6610	1.440	.122	3.521	.244
7D Discretionary	397	.0	5.0	1.704	1.1032	.409	.122	200	.244
8A Legal	397	.0	10.0	2.572	1.3024	1.420	.122	7.229	.244
8B Discretionary	397	.0	6.0	2.237	1.2434	.063	.122	246	.244
8C Ethical	397	.0	10.0	2.859	1.3657	1.257	.122	5.636	.244
8D Economic	397	.0	10.0	1.627	1.6309	2.130	.122	7.052	.244
9A Discretionary	397	.0	5.0	1.699	1.0722	.285	.122	163	.244
9B Economic	397	.0	10.0	3.064	1.8102	1.265	.122	2.897	.244
9C Legal	397	.0	10.0	2.414	1.2030	.723	.122	4.024	.244
9D Ethical	397	.0	8.0	1.898	1.2754	1.012	.122	2.776	.244
10A Discretionary	397	.0	6.0	1.685	1.0715	.508	.122	.361	.244
10B Legal	397	.0	10.0	2.446	1.0861	.794	.122	5.426	.244
10C Ethical	397	.0	10.0	2.282	1.4385	1.033	.122	3.753	.244
10D Economic	397	.0	10.0	2.889	1.7072	1.262	.122	2.938	.244
11A Economic	397	.0	10.0	2.471	1.9194	1.294	.122	2.602	.244
11B Discretionary	397	.0	8.0	1.652	1.2633	1.002	.122	2.427	.244
11C Legal	397	.0	10.0	2.300	1.2323	1.285	.122	6.785	.244
11D Ethical	397	.0	10.0	2.358	1.2980	.678	.122	2.645	.244
12A Ethical	397	.0	10.0	2.107	1.5713	.521	.122	.873	.244
12B Legal	397	.0	10.0	2.722	1.3628	1.428	.122	6.175	.244
12C Discretionary	397	.0	7.0	1.105	1.0800	1.124	.122	2.248	.244
12D Economic	397	.0	10.0	3.135	1.8756	1.052	.122	2.154	.244
13A Ethical	397	.0	10.0	2.904	1.6115	1.370	.122	4.743	.244
13B Legal	397	.0	10.0	2.081	1.2241	1.070	.122	5.209	.244
13C Economic	397	.0	10.0	2.889	1.6690	1.321	.122	3.463	.244
13D Discretionary	397	.0	5.0	1.471	1.0187	.432	.122	051	.244

Table 3.8 below shows Mahalanobis d-squared of cases no. 15, 39, 129 and 386 are the more extreme outliers. Responses of these specific cases were reviewed again and no unreasonableness on the responses was found hence they should be retained for further analysis. When C.R. (critical ratio) or Mardia's (1970) normalized estimates > 5, it is indicative of multivariate non-normality (Bentler, 2005). C.R. in this case at 126.081, suggesting potential degree of multi-variate non-normality, thus further justification of the usability of the data from relevant literature is warranted.

## Table 3.8



Observation number	Mahalanobis d-squared	p1	p2
15	196.878	.000	.000
39	166.587	.000	.000
129	165.443	.000	.000
386	160.267	.000	.000

Sample 2- Observations Farthest from the Centroid (Mahalanobis Distance)

Moderate non-normality appeared to have insignificant impacts in biasing parameter estimates when using ML (Lei & Lomax, 2005). ML as the estimator can perform quite stably in the context of ordered categorical data even when normality is moderately violated (Bollen, 1989; Gorsuch, 1983; MacCallum, Browne & Sugawara,1996; Muthén & Kaplan, 1985; Muthén & Muthén, 2002). And factor analyses including CFA and the fit indices can still appear to be robust on such kind of data (Floyd & Widaman, 1995).

Hu & Bentler (1999) suggested that when there is moderate and severe degree of nonnormality, fit statistics of smaller sample size like  $n \le 250$  will be affected most. With N=397 in Sample 2, fits statistics outcome could be less susceptible to the influences from data nonnormality. In summary, both EFA and CFA can still appear to be rather robust and produce relatively accurate parameter estimate even when deviating from the rule of data normality (Gorsuch, 1983) especially when sample size is large (Hu, Bentler, & Kano, 1992).

## 3.4.3.2 The C-CSRO model and parceling strategy

C-CSRO as a CFA model measures the CSRO of a Chinese person that encompasses four main factors from A.B. Carroll's (1979) concepts which includes Economic (Econ), Legal,



Ethical and Discretionary (Disc). Each factor has 13 indicators that come from the 13 statements in C-CSRO and all of them correspond to one particular CSRO, i.e. 13 (statements) x4 (CSRO) = 52 observed indicators. These observed indicators load on the four factors of C1Econ (Economic), C2Legal, C3Ethical and C4Dis (Discretionary) in the following manner and is illustrated diagrammatically in Figure 3.4:

1A, 2A, 3B, 4A, 5B, 6A, 7C, 8D, 9B, 10D, 11A, 12D, 13C load on factor C1Econ (Economic)
1B, 2C, 3A, 4B, 5C, 6B, 7B, 8A, 9C, 10B, 11C, 12B, 13B load on factor C2 Legal
1D, 2D, 3D, 4D, 5D, 6C, 7A, 8C, 9D, 10C, 11D, 12A, 13A load on factor C3Ethical
1C, 2B, 3C, 4C, 5A, 6D, 7D, 8B, 9A, 10A, 11B, 12C, 13D load on factor C4Disc
(Discretionary)

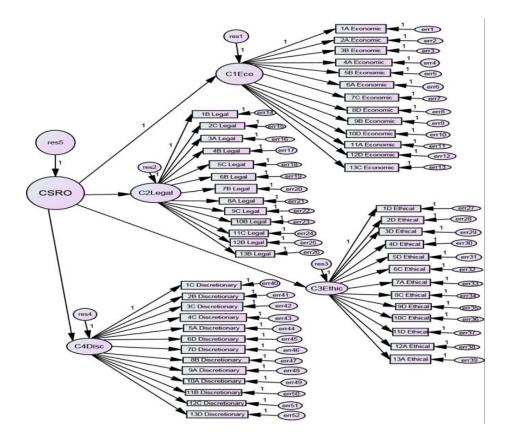


Figure 3.4. Original C-CSRO Model in a 52 Items Scale



A trial run using the estimation method of Maximum Likelihood (ML) on the C-CSRO model on Sample 2 returned some unsatisfactory statistics indicating rather poor fit of the model.  $X^2$ = 7307.25; df = 1270 rendering  $X^2/df$  = 5.75, probability level = .000; RMSEA .110 and CFI .530.

C-CSRO has s a relatively large (52) number of items/indicators. A revisit to the study by Burton et al. (2000) found that "CFA with many indicators per latent factor often does not converge and tends to produce a poor fit even when the model is relatively accurate. The usual practice is to reduce the number of indicators by averaging several items and then use the averages as new indicators for the latent constructs ......this procedure resulted in four indicators for each type of responsibility" (p.157). In other words, Burton et al. had resorted to an item parceling strategy to address this issue.

The parceling method can be referenced with the suggestion by Hoyle (2012) and applied to the C-CSRO situation. Take Economic as an example. There are 13 indicators or item variables that load on one and only one CSRO, in this case Economic. Based on the mean CSRO scores of each of these 13 indicators, the highest and the lowest mean scores are grouped together under the first parcel of P1Econ; indicators with the next highest and lowest mean scores are then grouped under the second parcel P2Econ, so on and so forth. As such Economic can in fact be sub-divided into four parcels under the labels of P1Econ, P2Econ, P3Econ, 4Econ. Since there are 13 indicators to be allocated to four parcels, the odd one remaining will be assigned to any one of the four parcels randomly. After all the 13 indicators or items are assigned to one of the four parcels of Economic, total scores within each parcel are then averaged based on the actual number of indicators being assigned to it. That is P1Econ is the average score of items 1A, 8D, 6A 5B; P2Econ represents the average score



from items 7C, 11A, 4A; P3Econ is the average of items 9B, 3B, 10D; P4Econ is the average of 12D, 2A, 13C. The same procedure can then be applied to all the other indicators and the respective factors of Legal, Ethical and Discretionary.

There are different scholarly views with regard to the pros (Bovaird & Koziol, 2012; Floyd & Widaman, 1995; Hoyle, 2011, Kishton & Widaman, 1994) and cons (Marsh, Hau, Balla & Grayson, 1998; Nasser & Wisenbaker, 2003; Rushton, Brainerd & Pressley, 1983) of parceling. Seemingly the generalizable view is the centre of gravity over the pros and cons in parceling actually swings in accordance to different research contexts. Hall, Snell and Foust (1999) opined that large number of indicators might actually confound data by increasing likelihood in shared secondary influences and cross-loadings among indicators, so parceling is recommendable when validating measurement scale of a large number of indicators (Floyd & Widaman, 1995); as in this case C-CSRO has 52 indicators. Through parceling it can reduce the number of free parameters to a manageable number (Hoyle, 2011), increase reliability, communality, common-to-unique factor variance ratios and enhance model fit (Bovaird & Koziol, 2012).

Besides, the statement content of all the 13 indicators that load on the same CSRO variable are rather cogeneric in nature, only tapping into a confined band of a CSR dimension from different angles. When items are having high level of homogeneity, they resemble some kind of multi-item clusters or facets that have stronger reliability when compared to single item scales (Reise, Waller & Comrey, 2000) and such a characteristic will make the application of a parceling strategy more suitable (Banadalos & Finney, 2001). Yet parceling is not recommended for SEM in new scale development (Worthington & Whittaker, 2006). Since C-CSRO was translated from an established source which in turn was construed upon a priori



model, the adoption of a parceling strategy in this case would appear reasonable. After parceling the number of indicators of the C-CSRO model is trimmed down to 4x4=16 and is represented diagrammatically in Figure 3.5.

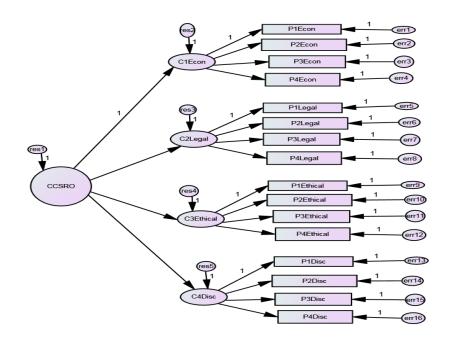


Figure 3.5. C-CSRO Model (after parceling)

To recapitulate, the CFA model to be tested hypothesizes a single model of C-CSRO on a Chinese person's orientation towards corporate social responsibility that can be explained by four factors: C1Econ (Economic), C2Legal, C3Ethical and C4Disc (Discretionary). Covariations among these four factors are explained fully by their regression on C-CSRO, and error terms associated with the item measurement are uncorrelated. Each of these factors has 4 indicators represented by a parcel that has a non-zero loading on one and only one of the factors, and these indicators load on their respective factor in the following pattern:



P1 Econ, P2Econ, P3Econ, P4Econ load on factor C1Econ;

P1Legal, P2Legal, P3Legal, P4Legal load on factor C2Legal;

P1 Ethical, P2 Ethical, P3 Ethical P4 Ethical load on factor C3Ethical;

P1Disc, P2Disc, P3Disc, P4Disc load on factor C4Disc.

## 3.4.3.3 Sample 2 - results on Confirmatory Factor Analysis

The C-CSRO Model after parceling was then put to statistical tests using CFA. For simplicity sake, the model is still called C-CSRO. The results obtained from CFA are reported below.

## • Test of absolute fit

The absolute fit indices assess the degree of how well a priori model can reproduce data of the sample along a continuum (Hu & Bentler, 1999). Chi square  $X^2$  value reflects differences between covariances derived from the model and the actual covariances, in general a  $X^2/df$  ratio about 5.0 is regarded as reasonable. For C-CSRO df = 100,  $X^2 = 329.126$ , p < .001, and  $X^2/df$  ratio = 3.29. With probability value of the  $X^2$  test smaller than .05, by convention the null hypothesis that the model fits the data on a global basis should be rejected.

The calculation of  $x^2$  is affected by samples size; larger the sample size would lead to higher  $x^2$  statistics, this can magnify  $x^2$  and minor specification errors (Kaplan,1995) and increase the risk of committing type I error i.e. rejecting a true model (Finney & Distefano, 2006). With N=397,  $x^2$  value might be inflated indicating significant difference statistically, despite practical difference might not be substantial. Henceforth, multi-faceted fit statistics and parameter estimates should be consulted (Schumacker & Lomax, 1996).



The Goodness of fit Index GFI (Jöreskog & Sörbom, 1984) represents how well the relative amount of observed variances and covariances among indicators fit the hypothesized model. When GFI is above .9 it suggests acceptable fit by some scholars (Bentler & Bonnett, 1980, Gerbing & Anderson, 1988) and regarded as good fit by others (Meyers, Gamst & Guarino, 2013), and close to one is an indicator of good-fit (Byrne, 2010). GFI of C-CSRO is .910.

Another absolute fit index Root Mean Square Error of Approximation RMSEA (Steiger & Lind, 1980) measures the fit between model-based and adjusted covariance matrix with the actual covariance matrix. Hu and Bentler (1999) suggested a cut-off RMSEA value of .06 for good model fit. In general RMSEA at .05 represents close fit, up to .08 represents adequate fit and when greater than .10 indicates poor fit (Browne & Cudeck, 1993). RMSEA in this case is .076 measuring up to a standard of fair fit at a 90% confidence interval with upper bound at .085 and lower bound at .067. PCLOSE is at .000 which is less than .05 indicating low probability value in association of the test of close fit but such confidence intervals are also subject to the influence from the number of estimated parameters and sample size (MacCallum et al., 1996).

## • Test of relative fit

Incremental fit indices assess the proportionate improvement in fit by comparing between a target model and a more restricted baseline model where typically all observed variables are uncorrelated (Hu & Bentler, 1999). Tucker-Lewis Index TLI (Tucker & Lewis, 1973), Normed Fit Index NFI (Bentler & Bonett, 1980) and Comparative Fit Index CFI (Bentler, 1990) are commonly used and both TLI and CFI are less sensitive to sample size (Marsh, Balla & McDonald, 1988, McQuitty, 2004). Actually NFI and CFI are better fit indexes than the chi-square when samples have non-normal condition (Lei & Lomax, 2005). CFI .95 to 1



is generally regarded as good to best fit; TLI .95 to 1 indicates excellent fit (Tracey, Marsh & Craven, 2003), .9 is acceptable fit and below .9 means the model needs respecification (Bentler & Bonett 1980). In this case CFI at .944 means 94% of the covariations in the data can be reproduced by the priori model. Both TLI .933 and NFI .923 appear to support a reasonably sufficient fit of the model when compared with a null model. Similar to RMSEA, SRMR is measuring the badness of the model fit so the smaller the number the better is the model fit, and SRMR below .08 indicates good fit (Hu & Bentler, 1999). SRMR in this case is .071 suggesting the data fits the model reasonably well.

Overall, the ML-based fit statistics confirm sufficient model fit for C-CSRO based on data obtained from Sample 2. Even though cut-off values are useful guidelines they involve arbitrary judgment. Some are rules of thumb, others though empirically grounded, are bounded by specific research situations and not meant to be infallible (Marsh, Hau & Wen, 2004). As such model fitness does not guarantee model predictiveness, so further analysis in conjunction with other indicators including parameter estimates, squared multiple correlation coefficients ( $\mathbb{R}^2$ ) is done (Boomsma, 2000).

#### • Parameter estimates

Parameter estimates help to assess how well the observed indicators measure each of the latent variable, giving a more informed picture about the predictiveness of the model. Regression weights and standardized loadings representing correlation between each observed variables and the corresponding factor in C-CSRO are reviewed. Parameter path coefficients at 1 are those being constrained, others are being estimated. Factor loading at .6 or above indicate these variables are explaining for at least 50% of the variance of the underlying latent variable thus enhancing model convergent validity (Chin, 1998). In this



case almost all factors loading are above .6 that supports certain degree of model predictability, except for C2Legal -.138, C3Ethical -.254 and C4Disc -.169. Besides, standard errors of the parameters between the observed variables and the latent variables are reasonably confined within the range from .025 to .087, and all estimates have critical ratio values bigger than 1.96 meaning they are significant at the .05 level.

Figure 3.6 below displays the estimated path coefficients of C-CSRO diagrammatically. When standardized paths are above .30 they can be considered meaningful (Chin, 1998). C1Econ (Economic) to the latent variable CSRO has the highest standardized factor loading of 1.34, whereas the other three non-economic factors for C2Legal, C3Ethical and C4Disc all have negative factor loadings >.3. The negativity is probably due to the ipsative nature of the scale as discussed earlier; conceptual overlapping among the other three non-economic dimensions make them likely to compete for item scores henceforth diluted their individual factor loading with CSRO.



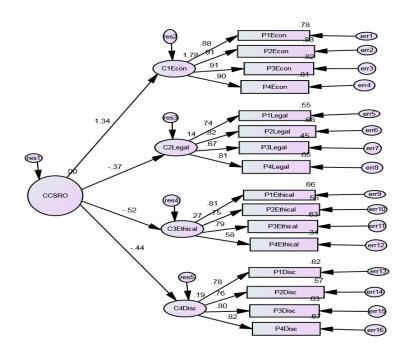


Figure 3.6. Hypothesized Factorial Structure of the C-CSRO Model

Squared multiple correlations ( $\mathbb{R}^2$ ) indicate to what extent the respective factor (dependent variable) explains the variance in an observed variable, and any  $\mathbb{R}^2$  larger than 10% of the variance is considered to have a large effect size (Davis, 2013).  $\mathbb{R}^2$  for most of the dependent factors here are rather substantial, ranging from .191 to 1.784.

## 3.4.3.4 Post hoc analysis on model misspecifications

Standardized Residuals showing discrepancies between sample and the restricted variance/covariance matrices are examined. When more residuals of the variables are



clustered around 0, that indicates better model fit (Byrne, 2001; Kunnan, 1998); and variables with residual values >2.58 is considered to be high and may imply variable misspecifications (Jöreskog & Sörbom, 1993). Standardized residual values higher than 2.58, are being highlighted in Table 3.9. These statistically significant discrepancies mainly come from the non-Economic variables i.e. between Legal/Discretionary, and between Legal/Ethical.

Modification indexes (MI) related to error covariances which may stem from the items (Aish & Jöreskog, 1990) are also investigated. Three pairs of MIs P4Legal <--- C3Ethical (MI = 27.049); and P1Econ<--- P2Ethical (MI=25.102); between err1 <--> err10 (MI = 47.814) are relatively, though not excessively, higher than the rest. Even though high MI can only be a warning sign and does not necessarily mean there is a problem, this may indicate possibility of localized area of strain and should be further examined.

### 3.4.3.5 C-CSRO Model (Adjusted)

During the investigation on items with high MIs, the content of the related item statements were reviewed again. A teacher who specialized in translation was consulted for a second opinion throughout the process. In the first pair of MI P4Legal <--- C3Ethical, it was found item statements 1B, 11C and 9C were grouped under the parcel of P4 Legal; and items 13A, 4D and 11 D were under the parcel of C3 Ethical. Wordings of these item statements were checked and did not seem to indicate any problematic content.

The second pair of MI comes from P1Econ<--- P2Ethical. Items 1A, 8D, 6A and 5B were grouped under the parcel of P1Econ; items 8C, 1D and 6C were under the parcel of P2Ethical.



# Table 3.9.

Standardized Residual Covariances (Group number 1 - Default model)

	P4Dis	P3Dis	P2Dis	P1Dis	P4Eth	P3Eth	P2Eth	P1Eth	P4Leg	P3Leg	P2Leg	P1Leg	P2Ecc	P4Eco	P3Eco	P1Eco
P4Dis	.000															
P3Dis	.039	.000														
P2Dis	.302	608	.000													
P1Dis	161	.293	.083	.000												
P4Eth	446	-1.144	1.472	876	.000											
P3Eth	.683	.805	2.060	1.707	324	.000										
P2Eth	831	421	1.602	.285	265	.112	.000									
P1Eth	137	124	1.019	1.428	.394	129	.104	.000								
P4Leg	-3.315	-3.669	-1.561	-2.042	3.411	4.187	3.420	3.046	.000							
P3Leg	-2.070	-4.046	517	-3.140	041	.392	928	976	732	.000						
P2Leg	-2.680	-1.999	-1.657	-2.317	005	2.011	.517	.412	056	.765	.000					
P1Leg	-3.607	-4.186	-2.928	-4.390	2.038	1.304	1.452	.063	.376	127	274	.000				
P2Eco	.212	.393	438	.493	231	-1.041	.483	.636	556	1.279	.709	1.224	.000			
P4Eco	1.110	.450	234	.518	775	-1.400	.348	282	-1.012	054	.214	.197	078	.000		
P3Eco	1.599	.465	615	1.028	557	646	.278	573	-1.150	.751	1.155	1.416	.092	.214	.000	
P1Eco	.630	.373	534	.122	.306	893	-2.125	701	928	1.609	.328	363	.164	274	198	.000



Both questions 6 and 8 were involved with the parcels of P1Econ and P2 Ethical. In fact if we looked into the matter in conjunction with the third pair of high MI from err1 <--> err10, err1, it was found err 1 was tied in with P1Econ and err 10 was tied in with P2Ethical. And in turn item statement 8C which represented the Ethical dimension was related to err 10); 8D that represented the Economic dimension was related to err1. Besides, scores of both 8C and 8D have markedly higher skewness/kurtosis when compared with the others (Table 3.8). Based on these the investigation was narrowed down to Question 8 with item statements 8C and 8D in particular, and their original wordings in both E-CSRO and C-CSRO were re-examined.

Question 8 asked the respondent to define what is meant by being a good corporate citizen. Statement 8C in English of the original E-CSRO is "doing *what* is expected morally and ethically", whereas 8C in C-CSRO was translated as "所作所為皆合乎一般道德標準". If 8C in its Chinese version was back-translated into English, it would become "doing *whatever* is expected morally and ethically". This revealed some subtle yet important discrepancies between the meaning of C-CSRO and E-CSRO over this item statement of 8C.

As for 8D its original English wordings in E-CSRO is "being as profitable as possible". When this is translated into Chinese it could become "盡可能賺取最高利潤". The Chinese version of 8D was then back-translated into English and appeared to reflect the original meaning in E-CSRO without problem. Since the Chinese translation of 8D in C-CSRO seemed to have retained content integrity of its original meaning in E-CSRO, therefore 8C becomes the focus for improvement.



It was found by simply deleting one word "皆" (meaning "all or ever") in 8C of C-CSRO it became "所作所為皆合乎一般道德標準". By doing so this would further enhance its accuracy in reflecting the original meaning of 8C in its source language. Such change was reviewed and agreed by two other experienced language teachers whom have bilingual and translation academic training and work experience.

Aside from content integrity, a possible cause of high MIs in C-CSRO can be due to some parameters that are fixed but in fact should have been freed (Byrne, 2000). So the C-CSRO model is adjusted by freeing estimated parameters on model error covariance with the highest MI i.e. err1<--> err 10 and as represented by Figure 3.7.

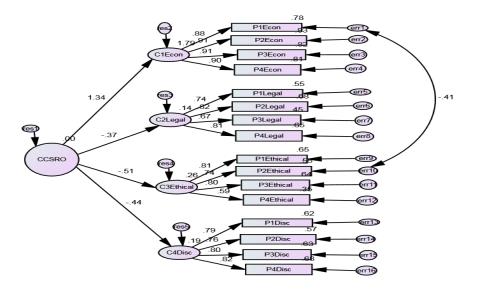


Figure 3.7. Hypothesized Model of Factorial Structure for C-CSRO (Adjusted)



After the re-specification, there were some slight improvements in the fit statistics. *df* of C-CSRO (Adjusted) =99, Chi-square = 278.635, probability level <.001. CFI value increased to .956; GFI to .924, TLI to .947, RMSEA decreased and down to .068 and SRMR to .070. Furthermore the previously high MIs in the original C-CSRO Model that came from err1<--> err 10 and P1Econ<--- P2Ethical were deflated.

Nevertheless, this does not imply the necessity to re-specify parameters of the C-CSRO Model. As pointed out by Thompson (2000), model re-specification should not be simply data driven and for the sake of improving model fit, unless it is supported by solid rationales that are both "theoretically and practically defensible" (p. 272). Hancock (2006) also posited that model fit does not necessarily support model truth; looking out for exact model fit or absolute truth is unrealistic, what is of higher interest is to find out if there is acceptable or not acceptable model-data fit. Since Models are no more than estimations of some structural realities thus a reasonable extent of misspecification should be tolerable, "when an initial model fits well, it is probably unwise to modify it to achieve even better fit" (MacCallum, Rozonwski, & Necowitz, 1992, p.501). C-CSRO was grounded upon an established concept of CSR and the item variables of the C-CSRO scale are translated from a well validated measurement, hence misspecification due to conceptual inadequacies should be less likely. Besides, the initial fit statistics of C-CSRO, though not perfect, were reasonably good. In other words, resorting to model re-specification with the sole objective to have even better model fit should be exercised with much care. Following the above argument, it was decided that since statement 8C has already been identified to be problematic, simply by deleting one word in 8C as explained earlier on, content integrity of C-CSRO should be improved and the change can be kept to the minimum.



Summing up, there is positive evidence to support credibility in claiming the latent variables of C-CSRO are measured by its related indicators and there exists a more global factor in C-CSRO that can explain the co-variations among the factors. With C-CSRO has already displayed adequate fit; from a theoretical standpoint probably it is not appropriate to respecify a good enough model to something that may not be replicable. Instead, the one word in item statement 8C will be deleted based on reasons mentioned above. A copy of the C-CSRO to be used in the intervention can be found in Appendix E.

## 3.5 Chapter Summary

Chapter 3 accounted for the research methodology and methods used in this study. A scientific research worldview, a quantitative research methodology and a quasi-experiment are to be used to address the research question. Two key issues are being addressed: design an experimental manipulation and develop a measurement instrument for data collection. This Chapter firstly explained the rationale in designing the intervention, its activity content, the procedures in recruiting participants and data collection. It also expanded on the usage of the statistical method repeated measure multivariate analysis of variance (MANOVA) in evaluating the effectiveness of the intervention.

Secondly it discussed how to obtain and validate a reliable Chinese measurement scale C-CSRO. References on established methodological approach and methodical procedures in translating measurement scales were drawn upon and adopted in converting the host scale (E-CSRO) from English into Chinese (C-CSRO). To enhance the content and face validity of C-CSRO, stringent steps were taken in the whole translation process to safeguard the integrity



and equivalence of the Chinese version to the host scale. Furthermore focus group discussion and empirical test were embedded in the validation process of C-CSRO. Factor analytic outcomes using PCA and CFA confirmed the reliability and validity of C-CSRO. Factor structure and interrelatedness of the C-CSRO constructs are consistent with those that the original instrument purports to measure. Although there is no evidence to support a perfect fit between the sample data and the model, nor can we claim that the C-CSRO measurement model has been fully validated, overall the sample data has displayed similar psychometric properties of E-CSRO and such properties are robust in this sample. It is reasonable to conclude that this study has substantiated C-CSRO as a relevant factor structure that is meaningful and replicable, qualifying it as a suitable measurement tool to assess CSRO in a Chinese community.



## RESULTS

This Chapter reports the results of the study. Using a quasi-experimental research design, 165 students who have enrolled either at Year 1 or Year 2 of the Associate in Business (Business Management) Programme of the Hong Kong Community College (HKCC) participated in this study. They were split into two groups: the Experimental group (X) N=82 and Control (C) group N=83. A one day CSR themed intervention was implemented on the X group. A Chinese version of the Orientations to Corporate Social Responsibilities instrument (C-CSRO) was used to collect data at pre and post intervention time points. Section 4.1 describes the results on initial screening of the data gathered to review data adequacy for further analysis, including a t-test result to identify and significant differences between pre-intervention mean in the X and C groups. Section 4.2 describes the factor variables involved in this part of the study. Section 4.3 presents descriptive statistics of the X and C groups. Section 4.4 explains in greater details how the model is developed that is fit for the purpose for a RM MANOVA. Section 4.5 and 4.6 report the pre-posttest results, including the within and between subjects' effects. Section 4.7 elaborates on the results in testing the three hypotheses proposed in Chapter 2 Section 2.6. Section 4.8 is the chapter summary.



### 4.1 Data Screening

Table 4.1 shows tests of data normality at the pre intervention stage. A further check on the Cook's Distances indicates that no observation has a value > 1.0 suggesting the data is less likely to be impacted by outliers from the observations.

## Table 4.1.

Test of Data Normality

	Kolr	nogorov-Smirno	v <sup>a</sup>	Shapiro-Wilk				
	Statistic	Df	Sig.	Statistic	Df	Sig.		
Pre mean Econ	.067	165	.070	.960	165	.000		
Pre mean Ethical	.080	165	.012	.985	165	.076		
Pre mean Legal	.081	165	.010	.981	165	.026		
Pre mean Disc	.062	165	.200 <sup>*</sup>	.989	165	.213		

Baseline difference between the pre intervention status of X and C group was further established so as to identify any confounding influence from inherent group discrepancies. Independent samples T-tests for each CSRO dimension in pre-intervention stage were conducted (Table 4.3), indicating no significant differences in the four dependent variables between the X and C.



## Table 4.2.

Group experiment	N	Mean	Std. Deviation
experiment			
rr	82	2.68	.91
control	83	2.85	1.04
experiment	82	2.61	.52
control	83	2.56	.55
experiment	82	2.50	.49
control	83	2.48	.63
experiment	82	1.68	.54
control	83	1.65	.68
	control experiment control experiment control experiment	control83experiment82control83experiment82control83experiment82	control       83       2.85         experiment       82       2.61         control       83       2.56         experiment       82       2.50         control       83       2.48         experiment       82       1.68

Pre-Intervention Means of Experimental and Control Groups

#### Table 4.3.

Independent Samples T-Test for Equality of Means Experimental and Control Groups

	t-test for Equality of Means			
	t	Df	Sig. (2-	Mean Diff.
		tailed)		
Pre mean Eco	-1.138	163	.257	173
Pre mean Leg	.502	163	.616	.042
Pre mean Eth	.281	163	.779	.025
Pre mean Disc	.388	163	.699	.037

# 4.2 Model Variables

This section recapitulates on the model variables involved for statistical purposes. Two key factors are the main within subject factor of "Time" (pre or post); a primary between subject factor of "Group" (the Experimental X or Control C group). Based on findings from the literature review of Chapter 2 about possible influences from personal attributes to CSRO, plausible effects form the interactions with five personal factors of Gender, Age, Year of Study, Religion and prior CSR experience were managed and included in C-CSRO. Table 4.4 sums up the within and between subjects categorical variables of the model as: Time (pre and



post), Group (X or C) and five secondary factors of: Year of study (Year 1 or Year 2), Age (<18 or  $\geq$  18), Gender (Male or Female), Religion (Yes or No) and Prior CSR experience (Yes or No). The dependent variables were the four CSRO variables of Economic, Legal, Ethical and Discretionary, and their relative importance was expressed in numeric scores. It is anticipated that the intervention should be the main casual factor, if any, in changing the CSRO scores of the X group and leading to between and within subjects' differences.

#### Table 4.4.

Within-subjects and Between- subjects Factors

Within subjects factors	Codes	Between subjects factors	Codes
		Group	
Pre Econ	1	Experiment	1
Post Econ	2	Control	2
Post Legal	2	Year of Study	
Pre Ethical	1	Year 1	1
Post Ethical	2	Year 2	2
		Gender	
		Male	1
		Female	2
		Religion	
		Yes	1
		No	2
		Prior CSR experience	
		Yes	1
		No	2



### 4.3 **Descriptive Statistics**

This Section reports on the descriptive statistics of the X and C groups including profile mix %, pre/posttest mean scores and standard deviations. Table 4.5 displays the sample size breakdown by group and then by the control variables of Gender, Age, Year of study, Religion and Prior CSR experience within each group. N=82 in X group and N=83 in C group, all 165 participants were students of the Business Management programme meaning their study programme profile was homogeneous. Gender split of male/female within each group were: 48.8/51.2% in the X group and 57.8/42.2% in C group. With regard to age, according regulations of HKCC mature students were those who are age at or above 23, and this was used as the cut-off point to exclude students in the mature age group as samples. There were 147 participants who were aged between18 to 23. It turned out that no participants were aged above 23 and all those who were under 18, would turn 18 in the next few months. Split between Year 1 and Year 2 students were 57.3%/42.7% in group X and 50.6% /49.4% in group C. For Religion, only 39 the participants claimed they have some kind of religion (one Buddhist, two Catholics and 36 Christians) and the split between with and without religion in both X and C groups were 20.7%/79.33% and 26.5%/73.5% respectively. Lastly 80.5% of the participants in the X group and 84.3% in the C group did not have any prior CSR experience in joining any related seminars/courses or co-curricular activities. As far as these five personal variables are concerned, participants of both the X and C groups should have rather comparable profiles.

Table 4. 5.

Sample Size Breakdown by Subject Factors and by Group

Experimental Group (X) N (%)		Control Group (C) N (%)		
Group	82 (100%)	Group	83 (100%)	



$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Gender		Gender	
AgeAge $\geq 18$ 74 (90.2%) $\geq 18$ 73 (87.9%) $<18$ 8 (9.8%) $<18$ 10 (12.1%)Year of studyYear of studyYear of studyYr.147 (57.3%)Yr.142 (50.6%)Yr.235 (42.7%)Yr.241 (49.4%)ReligiosityReligiosityYes22 (26.5%)No65 (79.3%)No61 (73.5%)CSR experienceCSR experienceCSR experience	Male	40 (48.8%)	Male	48 (57.8%)
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Female	42 (51.2%)	Female	35 (42.2%)
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Age		Age	
$\begin{array}{llllllllllllllllllllllllllllllllllll$	$\geq 18$	74 (90.2%)	$\geq 18$	73 (87.9%)
Yr.147 (57.3%)Yr.142 (50.6%)Yr.235 (42.7%)Yr.241 (49.4%)ReligiosityReligiosityReligiosityYes17 (20.7%)Yes22 (26.5%)No65 (79.3%)No61 (73.5%)CSR experienceCSR experience	<18	8 (9.8%)	<18	10 (12.1%)
Yr.2       35 (42.7%)       Yr.2       41 (49.4%)         Religiosity       Religiosity         Yes       17 (20.7%)       Yes       22 (26.5%)         No       65 (79.3%)       No       61 (73.5%)         CSR experience       CSR experience	Year of study		Year of study	
Religiosity         Religiosity           Yes         17 (20.7%)         Yes         22 (26.5%)           No         65 (79.3%)         No         61 (73.5%)           CSR experience         CSR experience         CSR experience	Yr.1	47 (57.3%)	Yr.1	42 (50.6%)
Yes         17 (20.7%)         Yes         22 (26.5%)           No         65 (79.3%)         No         61 (73.5%)           CSR experience         CSR experience	Yr.2	35 (42.7%)	Yr.2	41 (49.4%)
No         65 (79.3%)         No         61 (73.5%)           CSR experience         CSR experience	Religiosity		Religiosity	
CSR experience CSR experience	Yes	17 (20.7%)	Yes	22 (26.5%)
	No	65 (79.3%)	No	61 (73.5%)
Yes 16 (19.5%) Yes 13 (15.7%)	CSR experience	2	CSR experien	ce
	Yes	16 (19.5%)	Yes	13 (15.7%)
No 66 (80.5%) No 70 (84.3%)	No	66 (80.5%)	No	70 (84.3%)

Table 4.6 and Table 4.7 show the mean scores and standard deviations of the four CSRO by group respectively at both pre and post intervention stage. From these tables it could be noticed that ranking of the four CSRO in pre intervention stage of both X and C groups followed the same descending order of Economic, Legal, Ethical and then Discretionary. While at post-intervention X group the ranking was changed to Economic, Ethical, Discretionary, and then Legal; those in the C group remained unchanged. The implications of such changes will be further elaborated in Chapter 5 Discussion.

### 4.4 Model Design

The purpose of Section 4.4 is to explain how the factor variables were grouped in modeling the interaction effects from them before the actual statistical tests were applied to generate outcome. Repeated measures multiple analysis of variance (MANOVA) was used to model these effects from within and between subject factors, and the tests were accomplished by using SPSS V.21 to generate data output. A second order Base Model was first considered that allowed the main within subjects factor of "Time' to interact with the main between



subjects factor of "Group" i.e. Prepost \* Group, and then interacted one by one with each of the five secondary subject factors of "Gender", "Age", "Year of study", 'Religion" and "Prior CSR experience". Post hoc tests were used to compare means derived from different groupings of these factor variables. To explore possible effects from the third order interactions, a Second Model had also been tested. It has the same grouping of the main within and between subjects' factor variables of the Base Model i.e. Prepost \* Group, but allowed additional third order interactions with the five secondary between subject factors simultaneously. SPSS syntaxes of the two models can be found in Appendix F.



# Table 4.6.

		Econ				Legal				Ethical				Disc			
		Pre		Post		Pre		Post		Pre		Post		Pre		Post	
Variable		м	SD	м	SD	м	SD	м	SD	м	SD	м	SD	м	SD	м	SD
Group	x	2.677	0.912	2.377	0.880	2.605	0.515	2.24	0.489	2.502	0.489	2.358	0.534	1.683	0.537	2.321	0.665
Gender	м	2.908	0.972	2.533	0.972	2.494	0.514	2.185	0.386	2.383	0.438	2.271	0.499	1.740	0.638	2.275	0.719
	F	2.458	0.803	2.230	0.767	2.711	0.498	2.293	0.569	2.615	0.513	2.441	0.539	1.628	0.419	2.365	0.615
Age	≥ 18	2.666	0.9134	2.339	0.875	2.596	0.5	2.234	0.493	2.498	0.486	2.369	0.542	1.707	0.542	2.352	0.639
	<18	2.7789	0.958	2.731	0.907	2.692	0.668	2.298	0.479	2.539	0.553	2.26	0.313	1.462	0.449	2.029	0.868
Year 1/2	Yr.1	2.56	0.848	2.277	0.871	2.722	0.45	2.304	0.435	2.557	0.526	2.352	0.504	1.673	0.494	2.308	0.731
	Yr.2	2.835	0.982	2.512	0.888	2.448	0.561	2.154	0.547	2.429	0.43	2.367	0.557	1.697	0.596	2.339	0.575
Religion	Yes	2.647	0.678	2.312	0.646	2.525	0.459	2.158	0.494	2.638	0.396	2.411	0.481	1.787	0.333	2.312	0.58
-	No	2.685	0.969	2.394	0.935	2.626	0.53	2.262	0.489	2.466	0.507	2.344	0.537	1.656	0.577	2.323	0.69
CSR																	
experience	Yes No	2.817 2.643	1.111 0.864	2.477 2.353	1.194 0.796	2.466 2.639	0.412 0.534	2.192 2.252	0.401 0.51	2.404 2.526	0.61 0.457	2.346 2.361	0.487 0.536	1.76 1.664	0.634 0.514	2.327 2.319	0.798 0.636

# Experimental Group - Pre/Post Marginal Means and Standard Deviations



# Table 4.7.

		Econ				Legal				Ethical				Disc			
		Pre		Post		Pre		Post		Pre		Post		Pre		Post	
Variable		м	SD	м	SD	м	SD	м	SD	м	SD	м	SD	м	SD	м	SD
Group	с	2.851	1.040	2.669	1.08	2.564	0.548	2.52	0.668	2.477	0.625	2.374	0.512	1.646	0.678	1.806	0.614
Gender	м	2.952	1.038	2.785	1.034	2.591	0.513	2.571	0.612	2.524	0.642	2.369	0.484	1.558	0.747	1.78	0.666
	F	2.712	1.043	2.510	1.139	2.525	0.598	2.451	0.74	2.413	0.603	2.38	0.556	1.767	0.558	1.842	0.541
Age	≥ 18	2.898	1	2.673	1.033	2.521	0.543	2.49	0.695	2.443	0.606	2.374	0.516	1.633	0.687	1.785	0.563
	<18	2.508	1.3	2.639	1.458	2.877	0.501	2.739	0.365	2.731	0.734	2.369	0.509	1.739	0.64	1.962	0.93
Year 1/2	Yr.1	2.745	0.888	2.634	0.924	2.707	0.5	2.645	0.518	2.654	0.567	2.438	0.496	1.529	0.569	1.767	0.592
	Yr.2	2.959	1.178	2.705	1.233	2.417	0.561	2.392	0.779	2.296	0.636	2.308	0.526	1.766	0.763	1.846	0.641
Religion	Yes	2.759	0.804	2.762	0.83	2.601	0.377	2.577	0.441	2.476	0.38	2.329	0.427	1.738	0.588	1.78	0.581
	No	2.884	1.118	2.636	1.163	2.55	0.599	2.499	0.734	2.478	0.695	2.39	0.542	1.613	0.71	1.816	0.63
CSR																	
experience	Yes No	2.692 2.88	0.95 1.06	2.485 2.703	0.684 1.141	2.769 2.525	0.372 0.568	2.686 2.489	0.641 0.672	2.402 2.491	0.618 0.629	2.379 2.373	0.476 0.522	1.834 1.611	0.861 0.64	1.728 1.821	0.51 0.633

# Control group - Pre/Post Means and Standard Deviations



When comparing data output derived from the Base Model to the Second Model, it was found that although similar results were obtained, some of the effects that appeared in the Base Model with significant differences were actually not found in the Second Model. Further examination on the data output showed that in fact the Second Model has a problem of overparameterization (88 parameter estimates) which might have diminished its power in detecting all potential effects.

In order to enable the Base Model Prepost \* Group to have third order interactions with the five secondary variables, but at the same time minimize undesirable effect of overparameterizing the model, the Base Model of Prepost \* Group was extended while keeping the third order interactions with the five secondary between-subjects factors, but only one at a time. The interaction pattern then became Prepost \* Group \* Age; Prepost \* Group \* Year; Prepost \* Group \* Gender; Prepost \* Group \* Religion; Prepost \* Group \* CSR experience, so that significant changes in the CSRO due to higher order interactions with these personal variables could still be detected. SPSS Syntaxes of the extended Base Model can also be found in Appendix F.

From the extended Base Model and the application of repeated measure MANOVA, multivariate and univariate tests results showed no significant differences from the third order interactions that were related to the five personal variables. This suggests possibility of confounding influence coming from the higher order interactions of these five secondary factors can be ruled out. Hence, the results to be reported in the next two sections are the outcomes derived from the Base Model.



#### 4.5 Tests of Within Subjects Effects

Section 4.5 reports the tests results of within subjects' effects from Pre and Post intervention time points. A multivariate test of the overall within subjects' effects for both PrePost and PrePost \* Group was conducted. The F statistic for Wilks' Lambda was F (1,155) with p=.003and p < .001 respectively. Univariate tests of within subjects effects on prepost results indicated there were significant differences in the dependent variables of Legal F (1,158) = 6.841 p =.01 (partial eta squared)  $\eta_p^2 = .041$ ; Ethical F (1,158) = 5.019 p=.026  $\eta_p^2 = .031$ ; and Discretionary F (1,158) = 5.869 p=.017  $\eta_p^2$  = .036. While for Pre-post \* Group test results, only the Legal and Discretionary variables showed significant differences with F(1,158) =17.182 p< .001,  $\eta_p^2 = .098 \text{ F}(1,158)=20.495$ , p< .001,  $\eta_p^2 = .115$  respectively. It should be noted that effect sizes found in all instances were less than .3. Cohen (1969) argued that an effect size of .2 is small, .5 is medium and .8 can be regarded as large. In other words, even though statistically significant differences can be found in certain aspects of the intervention results, the real differences do not appear to be large. A finding by Coe (2002) on a number of studies that involved educational intervention indicates that it is not uncommon to have small effect sizes with such kind of studies. In fact Glass, McGaw and Smith (as cited in Coe, 2002, p.5) pointed out that when examining the effect size of an intervention, it must be done in the light of potential costs and benefits. In this case the effect sizes, or the level of practical significance, were achieved by applying limited resources to run a learning activity that lasted for only one day. The gist of the matter is, any statistically significant differences found in both between and within group comparisons here were not due to randomness which offered support to the view that the intervention succeeded in changing CSRO in the X group, even though the real differences were not substantial.



#### 4.6 Tests of Between Subjects Effects

Tests on between subjects effects of the four CSRO variables showed that under the factor of Group, there were significant differences in Discretionary with F(1,158) = 10.833, p = .001,  $\eta_p^2 = .064$ ; and the Legal variable is only marginally significant with F(1,158) = 3.189,  $p=.076 \eta_p^2 = .02$ . Between-subjects effects univariate tests found significant differences in the Legal dimension with p = .006 under the Year of Study variable; and Economic with p = .024 under the Gender variable. As raised earlier under Section 4.4 Model Design that no significant differences were found in the dependent CSRO variables in the third order interactions with the five secondary personal variables of Age, Gender, Year of study, Religion and Prior CSR experience, hence the significant differences found in between-subjects effects under the variables of Year of study and Gender are more likely systematic differences rather than then being the causal factors in CSRO changes.

Section 4.5 and 4.6 reported the overall multivariate and univariate tests results of the Base Model. In sum, significant differences that were found in the within and between-subjects' effects indicated the presence of some second order influences from the main within subject factor of "Time" and the between subject factor of "Group", but effect sizes are notably small. As the significant differences shown in the multivariate and univariate tests results did not explain the magnitude, direction and source of such differences, further examination on pairwise comparison is needed and will be dealt with under Section 4.7 Hypothesis Testing.



# 4.7 Hypotheses Tests

The purpose of this Section is to put the three hypotheses being proposed under Chapter 2 for further testing. The legend used to denote the equations of these hypotheses equations are recapitulated below:

# Legend

Х	= Experimental Group
С	= Control Group
$X_E$	= pre intervention Economic score of the X group
$X_L$	= pre intervention Legal score of the X group
X <sub>Eth</sub>	= pre intervention Ethical score of the X group
$X_D$	= pre intervention Discretionary score of the X group
$C_E$	= pre intervention Economic score of the C group
$C_L$	= pre intervention Legal score of the C group
C <sub>Eth</sub>	= pre intervention Ethical score of the C group
CD	= pre intervention Discretionary score of the C group
I	= Post intervention scores

# Hypotheses 1

It is hypothesized that there are significant differences in post intervention mean scores of the four CSRO variables of Economic, Legal, Ethical and Discretionary, between the Experimental and Control groups.

 $\mathsf{H}_{\mathbf{0}}: X_{E,\,I} = C_{E,\,I}; \quad \text{or} \quad \mathsf{H}_{\mathbf{a}}: X_{E,\,I} \neq C_{E,\,I}$ 



$$\begin{split} &\mathsf{H_0:} \ X_{L,\,I} = C_{L,\,I}; \quad \text{or} \quad \mathsf{H_a:} \ X_{L,\,I \neq} \ C_{L,\,I} \\ &\mathsf{H_0:} \ X_{Eth\,,\,I =} \ C_{Eth\,,\,I}; \quad \text{or} \quad \mathsf{H_a:} \ X_{Eth\,,\,I \neq} \ C_{Eth\,,\,I} \\ &\mathsf{H_0:} \ X_{D,\,I =} \ C_{D,\,I}; \quad \text{or} \quad \mathsf{H_a:} \ X_{D,\,I \neq} \ C_{D,\,I} \end{split}$$

F statistics Wilk's lambda of multivariate tests (Table 4.8) showed overall there were no significant difference in pre-intervention score F=(1,155), p=.875 and a negligible effect size of ,  $\eta_p^2 = .008$ ; but there were significant difference in post intervention scores  $F=(1,155, p<.001, \eta_p^2 = .158)$ . Univariate tests (Table 4.9) further indicated significant differences in the posttest Legal variable F (1,158) = 10.303,  $p = .002, \eta_p^2 = .061$  and the Discretionary variable F (1,158) = 25.166,  $p<.001, \eta_p^2 = .137$ . Again such differences have a small effect size. A further inspection of pairwise comparisons between groups at posttest stage (Table 4.10) revealed there were significant differences in both posttest Legal and Discretionary variables between X and C groups. Posttest Legal mean in X was .296 points lower than that of C with p = .002.; on the contrary posttest Discretionary mean in X has a dramatic increase by +.512 over C Group with p < .001. Even though there was a marked drop in the mean score of the Economic variable of the X group by -.245 points over C, pairwise comparisons shows there was no significant difference in Economic with p=.117. Also there was no significant difference in Economic with p=.716.

#### Table 4.8.

#### Multivariate Tests

PrePost		Value	F	Hypothesis df	Error df	Sig.	Partial Eta	Noncent.	Observe
							Squared	Parameter	d
									Power <sup>b</sup>
1	Wilks' lambda	.992	.304a	4.000	155.000	.875	.008	1.216	.117
2	Wilks' lambda	.842	7.279a	4.000	155.000	.000	.158	29.115	.995



# Table 4.9.

	Pre	Post	Sum of Squares	df	Mean	F	Sig.	Partial Eta	Noncent.	Observed
					Square			Squared	Parameter	Power <sup>a</sup>
F	1	Contrast	.755	1	.755	.806	.371	.005	.806	.145
Econ	2	Contrast	2.411	1	2.411	2.484	.117	.015	2.484	.347
Logal	1	Contrast	.010	1	.010	.036	.850	.000	.036	.054
Legal	2	Contrast	3.518	1	3.518	10.303	.002	.061	10.303	.891
	1	Contrast	.006	1	.006	.020	.888	.000	.020	.052
Ethical	2	Contrast	.036	1	.036	.133	.716	.001	.133	.065
Discretionar	1	Contrast	.094	1	.094	.250	.618	.002	.250	.079
у	2	Contrast	10.563	1	10.563	25.166	.000	.137	25.166	.999

# Table 4.10.

#### Pairwise Comparisons

Measure	Pre - 1 Post -	Mean Difference Experiment -	Std. Error	Sig. <sup>b</sup>		lence Interval for ference <sup>b</sup>
	2	Control			Lower Bound	Upper Bound
E	1	137	.152	.371	438	.164
Econ	2	245	.155	.117	551	.062
T 1	1	.015	.081	.850	146	.176
Legal	2	296*	.092	.002	477	114
E4h: a al	1	.012	.087	.888	160	.184
Ethical	2	030	.082	.716	193	.133
D.	1	.048	.097	.618	142	.239
Disc	2	.512*	.102	.000	.311	.714

Based on the above, the results in testing Hypotheses 1 are:

• The alternative hypothesis that there is significant difference in the Legal variable between post intervention Experimental group and Control group  $H_a$ :  $X_{L_r, I} \neq C_{L_r, I}$  should not be rejected although the effect size is small.



- The alternative hypothesis that there is significant difference in the Discretionary variable between post intervention Experimental group and Control group  $H_a : X_{D, I \neq} C_{D, I}$  should not be rejected although the effect size is negligible.
- The alternative hypotheses that there is significant difference in post intervention score of Economic between the Experimental and Control group  $H_a: X_{E,I\neq} C_{E,I}$  should be rejected.
- The alternative hypotheses that there is significant difference in post intervention score of Ethical between the Experimental and Control group  $H_a$ :  $X_{Eth, I \neq} C_{Eth, I}$  should be rejected.

# **Hypotheses 2**

It is hypothesized that there are significant differences between pre and post intervention scores of the four CSRO variables of Economic, Legal, Ethical and Discretionary in the Experimental group.

For the Experimental group, there are significant differences between pre and post intervention scores (F (1,155)= 7.62, p < .001,  $\eta_p^2 = .164$ ) (Table 4.11).



Table 4.11.

Multivariate Tests of Experimental Group

Group		Value	F	Hypothesis	Error df	Sig.	Partial Eta	Noncent.	Observed Power <sup>b</sup>
				df			Squared	Parameter	
Experiment	Wilks' lambda	.836	7.620 <sup>a</sup>	4.000	155.000	.000	.164	30.481	.997

As mentioned in Section 4.5 univariate tests of within subjects effects on pre\*post results indicated there were significant differences in the dependent variables of Legal F (1,158) =  $6.841 \ p = .01; \ \eta_p^2 = .041;$  Ethical F (1,158) =  $5.019 \ p = .026 \ \eta_p^2 = .031;$  and Discretionary F (1,158) =  $5.869 \ p = .017 \ \eta_p^2 = .036.$  All of these three CSRO dimensions show significant difference statistically with small effect sizes.

Further examination on Pairwise comparisons of pre-post intervention scores of each dependent variable within the X group (Table 4.12) revealed that there was no significant difference in the Economic variable with p=.365, whereas all the three non-economic variables have significant differences between pre and posttest mean scores, with the means score of Legal variable decreased by .361 p<.001; Ethical decreased by .201, p=.028; but concomitantly Discretionary has a marked increase by .492, p<.001.

Table 4.12.

Measure	(I) Pret	(J)Post	Mean	Std.	Sig. <sup>b</sup>	95% Confider	ce Interval for
			Difference (I-	Erro		Diffe	rence <sup>b</sup>
			J)	r		Lower Bound	Upper Bound
Econ	1	2	.122	.134	.365	143	.387
Legal	1	2	.361*	.089	.000	.186	.537
Ethical	1	2	$.201^{*}$	.091	.028	.022	.380
Disc	1	2	492*	.121	.000	732	253

Pairwise Comparisons of Experimental Group



Based on these, the results in testing Hypotheses 2 are:

- The hypothesis that there is significant difference in Economic between pre and post intervention score of the Experimental group  $H_a: X_E \neq X_{E, I}$  should be rejected.
- The hypotheses that there is significant difference in Legal between pre and post intervention score of the Experimental group  $H_a: X_L \neq X_{L,I}$ ;  $H_a$  should not be rejected.
- The hypotheses that there is significant difference in Ethical between pre and post intervention score of the Experimental group  $H_a$ :  $X_{Eth \neq} X_{Eth, I}$  should not be rejected.
- The hypotheses that there is significant difference in Discretionary between pre and postintervention scores of the Experimental group  $H_a: X_{D \neq} X_{D, I}$  should not be rejected.

Furthermore, from the predicted mean scores of each dependent variable for both Experimental and Control groups (Table 4.13), a line graph can be plotted for the X group showing a drop in the Legal and Ethical scores after the participants experienced the intervention, whereas there is an increase in post intervention Discretionary score when compared to its pre intervention stage (Figure 4.1.).

Table 4.13.

Estimates										
Measure	Group	PrePost	Mean	Std. Error	95% Confidence Interval					
					Lower Bound	Upper Bound				
	experiment	1	2.637	.181	2.281	2.994				
Faar		2	2.515	.184	2.152	2.879				
Econ	control	1	2.774	.174	2.431	3.117				
	control	2	2.760	.177	2.411	3.109				

Predicted Means of Experimental and Control Group



	ovporimont	1	2.641	.097	2.450	2.831
Logol	experiment	2	2.279	.109	2.064	2.495
Legal	control	1	2.625	.093	2.442	2.809
	control	2	2.575	.105	2.368	2.782
	ovporimont	1	2.508	.103	2.304	2.712
Ethical	experiment	2	2.307	.098	2.115	2.500
Ethical	control	1	2.496	.099	2.300	2.692
	control	2	2.337	.094	2.152	2.522
	ovporimont	1	1.799	.114	1.574	2.025
Disc	experiment	2	2.292	.121	2.053	2.531
	control	1	1.751	.110	1.534	1.969
	CONTO	2	1.780	.116	1.550	2.009

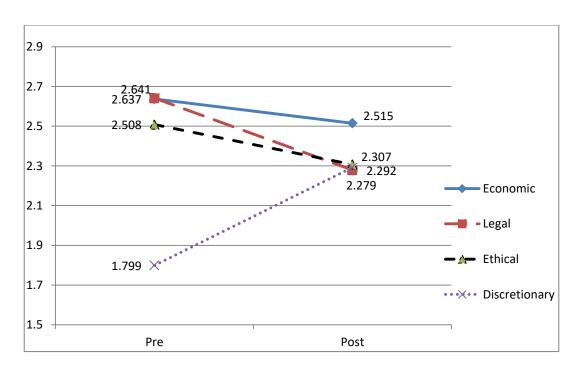


Figure 4.1. Pre-Post Intervention CSRO Mean Scores of the Experimental Group

# Hypotheses 3

It is hypothesized that there are no significant differences between pre and post intervention scores in each of the four CSRO dimensions: Economic, Legal, Ethical and Discretionary within the Control Group



$H_0: C_E = C_{E, I}$	or	H <sub>a</sub> : <i>C<sub>E</sub> ≠ C<sub>E, I</sub></i>
$H_0: C_L = C_{L, I}$	or	$H_{a}: C_{L \neq} C_{L, I}$
$H_0: C_{Eth} = C_{Eth, I}$	or	$H_a: C_{Eth \neq} C_{Eth, I}$
$H_{0}: C_{D} = C_{D, I}$	or	H <sub>a</sub> : <i>C<sub>D ≠</sub> C<sub>D, I</sub></i>

As shown in Table 4.14, there were no significant differences found between pre and posttest scores for the Control group (F (1,155)=1.42, p=.23). Similarly, as shown in Table 4.15, pairwise comparisons for the Control group did not show significant difference for any of CSRO variables at the p=.05 cut off.

Table 4.14.

Multivariate Tests of Control Group

Group Val		Value	F	Hypothesis df	Error df	Sig.	Partial Eta	Noncent.	Observed	
							Squared	Parameter	Power <sup>b</sup>	
Control	Wilks' lambda	.965	1.420 <sup>a</sup>	4.000	155.000	.230	.035	5.680	.434	

Table 4.15.

Pairwise Comparisons of the Control Group

Measure	(I)	(J)	Mean	Std.	Sig. <sup>b</sup>	95% Confidence Interval for Difference		
	Pre	Post	Difference (I-J)	Error		Lower Bound	Upper Bound	
Econ	1	2	.014	.129	.913	241	.269	
Legal	1	2	.050	.085	.557	118	.219	
Ethical	1	2	.159	.087	.071	014	.331	
Disc	1	2	028	.117	.808	259	.202	

Thus the following null hypotheses stating that there are no significant differences in the four CSRO variables of Economic, Legal, Ethical and Discretionary between pre and post intervention scores of the Control Group should not be rejected.

$$H_{0}: C_{E} = C_{E, I}; \qquad H_{0}: C_{L} = C_{L, I};$$
$$H_{0}: C_{Eth} = C_{Eth, I} \qquad H_{0}: C_{D} = C_{D, I}$$



Also using predicted means obtained earlier on from Table 4.13, a line graph can be plotted for the C group showing a relatively flat pre-post intervention mean scores difference of the four CSRO (Figure 4.2).

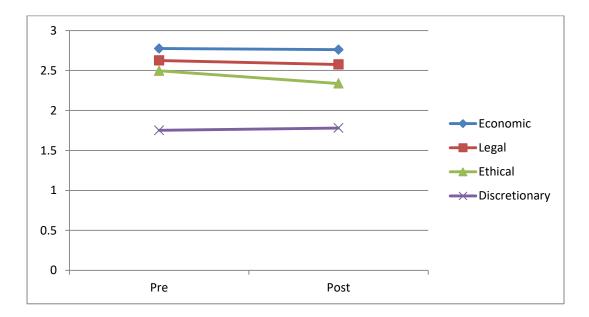


Figure 4.2. Pre-Post Intervention CSRO Mean Scores of Control Group

# 4.8 Chapter Summary

The Chinese version of the Corporate Social Responsibility Orientations instrument (C-CSRO) was used to collect pre/post intervention data from both the Experimental (X) group and Control (C) group, and repeated measures MANOVA was used to analyze the data. There were no statistically significant changes on any of the dimensions in the C group but significant changes on some of the dimensions in the X group were found.



Firstly, in post intervention between groups' comparison, there were significant differences in the Legal variables in the X group with a marked drop in score by -.296. On the contrary, Discretionary score in X has a distinctive increase by +.512 over posttest score of C group. And there were no significant differences in the Economic and Ethical scores between posttest X and C groups. Secondly, when comparing pre-posttest scores within groups, there were no significant differences in X group Economic score while the three non-economic CSRO variables all show significant differences, but the changes in scores went in different directions, with Legal decreased by .361; Ethical decreased by .201, but Discretionary increased by .492. Thirdly all the four CSRO variables in the C group did not show any significant differences in pre-post intervention comparison. In particular, there were more prominent and positive changes of the Discretionary score in both within and between groups' comparisons. This seemed to be achieved at the expense of the other two non-economic CSRO of Legal and Ethical. Possible reasons to explain this phenomenon will be elaborated in Chapter 5 Discussion. It should be noted that in all instances the effect sizes being reported are rather minuscule.

Besides, the results supported that the five secondary factors of: Year of study, Age, Gender, Religion and Prior CSR experience were ignorable. So with significant differences found in pre-posttest scores of the X group, and no significant differences in pre-posttest scores of the C group, the evidence somehow appear to point towards a tenable claim that the intervention has likely led to changes in the CSRO scores of the participants. Based on the statistical results reported above, Chapter 5 will discuss on the issues and implications that emerged in this study from the conceptual and practical angles, especially in relation to CSR education.



# Chapter 5

#### DISCUSSION

Chapter 5 discusses the implications of this study from the conceptual, curricular, operational and educational research perspectives. The chapter is divided into five sections. Section 5.1 re-examines the immediate results of the intervention and how the research question has been answered. Section 5.2 examines the implications to CSR education at the curriculum level. Section 5.2.1 deliberates on the kind of curriculum space that CSR education should occupy and Section 5.2.2 discusses the usefulness of an intervention in changing students' CSRO versus changing ethical behaviour as a learning outcome. Section 5.3 continues with the implications to CSR education but at an operational level. Section 5.3.1 expands on the benefits of the service learning method in CSR education, at the same time identifies areas to improve its implementation in the intervention. Section 5.3.2 discusses two implications in relation to teachers of CSR subjects. Section 5.4 explicates the ecological potential of this study to other relevant communities, mainly business schools in Mainland China. Section 5.5 lifts the discussion to a broader level on the implications to educational research. Section 5.6 is the chapter summary.

## 5.1 Immediate Results of the Intervention

The core research question of this study was "how to develop the CSR orientation (CSRO) of business students". A sub research question was "how effective is a CSR themed educational



intervention in influencing Chinese business students' CSRO in particular". The research objectives were to assess the efficacy of a CSR-themed one-day co-curricular activity as an intervention in influencing the CSRO of a group of sub-degree Chinese business students in Hong Kong; and to explore the implications of the results for CSR education and educational research.

This study was based on A.B. Carroll's (1979, 1991a) Pyramid of CSR framework that defined CSR by the variables of Economic, Legal, Ethical and Discretionary (Philanthropy). Central to the study was a well-tested English measurement instrument the E-CSRO (English - Orientation to Corporate Social Responsibilities) initiated by Aupperle (1982) which was built upon A.B. Carroll's CSR constructs. The main tasks being undertaken in this study and the key results are recapitulated below that include:

• Developed a Chinese version of the measurement instrument E-CSRO, calling it C-CSRO in this study; validated the structural and content equivalence of C-CSRO to its host scale and established its relevance among a Chinese sample.

• Designed an intervention in the form of a one day CSR-themed learning activity that was implemented with a sample of Chinese business students from the Associate in Business (Business Management) program. Inspired by Rossouw's (2002) writing and other related literature, the intervention consisted of a series of tasks including: reading, seminars, site-visit and servicing at an NGO.

• The research design has two groups of students, both studying an associate degree in business management. One group experienced the intervention as the Experimental X group



and the other did not join the intervention as the Control C group. C-CSRO was administered on two occasions for both groups, once before and once after the intervention. The results were analysed using a repeated measure MANVOA (Multiple Analysis of Variance) statistical procedure.

• Some significant differences were found from the post-intervention scores between the X and C groups, and also within the pre-post X group.

• For the C group, there were no significant differences between all pre-post intervention scores from the C-CSRO.

• For the X group, there was no significant difference between pre-post intervention scores on the Economic dimension. Significant differences were found on the three non-economic dimensions of C-CSRO (Legal, Ethical and Discretionary) but these differences were not in the same direction. Post-test mean for the Legal and Ethical dimensions dropped while the Discretionary dimension scores clearly increased.

• Post-test mean comparisons between groups showed Legal dimension of the X group was significantly lower than that of C, but the Discretionary dimension of X was significantly higher.

• The factors of Year of study, Age, Gender, Religion and Prior CSR experience of the participants as some control variables, did not exert any significant effect on either the X or C group. It was assumed, therefore, that any significant differences were mainly due to the effects from the main variable of Time (pre and post intervention) and Group (X and C).



• Overall, changes in post-test non-economic CSR scores were not uniform with negative changes observed in some cases and a markedly higher score change in the Discretionary dimension. Thus while the intervention appeared to have exerted some effects, it did not do so uniformly.

To account for why the intervention only seemed to exert more influence on the noneconomic CSRO and in particular more positively on Discretionary and negatively on the Ethical and Legal dimensions, further examination of the intervention content is useful. Although the intervention was CSR-themed, the activity content did not cover the four CSR dimensions in exactly the same extent and duration. For example the guest speakers had the freedom to talk about their preferred areas of CSR performance, and from the content of the talks the Economic dimension was rarely mentioned as a CSR. It seemed economic achievement, though generally regarded as the most important CSR, was not something to showcase, as such the intervention did not really touch on this dimension. On the contrary, it was common for the speakers to talk about the non-economic CSR achievements. Environmental protection and charity services were the most popular illustrations. With the activities content clearly skewed towards the non-economic CSR, it is understandable why the intervention seems to impact more on the non-economic aspects only. Moreover, even the three non-economic CSR were not covered equally. The least being covered was the Legal dimension. Again the speakers seldom used legal compliance to illustrate their CSR performance. Perhaps in the eyes of the presenters, to be economically sound and law-abiding are fundamental responsibilities for a business that need no further mentioning, whereas the Discretionary dimension can easily concretize their CSR performance and often used as illustrations.



As far as the Ethical dimension is concerned, it is by nature more abstract. A.B. Carroll (1979) broadly defined Ethical as those CSR deeds that were above and beyond legal requirement, and in fact he admitted that "ethical responsibilities are ill defined and consequently are among the most difficult for business to deal with" (p.500). During the course of the intervention, the Hotel staff frequently used examples of their green initiatives and community services to demonstrate how CSR was practiced, but they would not explicitly describe their organization as ethical. The presenters probably reckoned that by fulfilling the Discretionary dimension they also fulfilled the Ethical dimension at the same time. This indicates the possibility of conceptual overlapping among the non-economic CSRO. Perhaps Ethical is better perceived as an underlying motive for rather than as a concrete CSR action *per se.* This conceptual implication will be further discussed in Chapter 6.

The X group endorsed the Discretionary dimension more strongly as evidenced by their postintervention scores when compared with its pre-intervention scores, and also when compared with the post intervention C group. When reflecting on the structure of the intervention, the Discretionary dimension was the one that had been highlighted most and also in an engaging manner. Firstly the Hotel's involvements with charity work obviously were connected to the Discretionary aspect. Besides, when the Director of Fullness shared how they had provided job opportunities to youths at their salon and car depot businesses, this could also be perceived by the participants as philanthropic. Even though from the point of view of Fullness this is not mere charity, but rather as a social enterprise this is actually their business mission. Furthermore, the last activity of the intervention that required the participants to directly take part in the work of an NGO has clear linkage to philanthropy, which would encourage them to relate to the Discretionary aspect more readily. Thus when students were asked to reallocate scores to the four CSRO right after the servicing experience, it would not



be difficult to explain why there was a positive surge in the post-test X group Discretionary scores, apparently at the expense of the other two non-economic CSRO of Legal and Ethical. In essence, the service experience is a likely and direct factor accounting for a significant and positive change in the students' post-intervention Discretionary dimension.

Apart from between and within groups' comparison in the pre-post intervention scores, perhaps it is also worth examining the ranking of the four CSRO. When it comes to the ranking in importance in pre intervention stage, the strongest endorsement was made on Economic, with Legal in the second place and the weakest was on Discretionary, showing a consistent pattern with a number of prior studies. When this issue of ranking was examined in the light of the wider literature, we found A.B. Carroll (1979, 1991a) attached a perceived ranking of importance to the four CSRO but arbitrarily weighted in a descending order of Economic, Legal, Ethical and Discretionary. Study by Aupperle (1982) and a number of others that had also applied E-CSRO to different cultural groups (Aupperle, Hatfield & Carroll, 1983; Aupperle Burton, Farh & Hegarty, 2000; Edmondson & Carroll, 1999; Ibrahim & Angeldis, 1995; Pinkston & Carroll, 1996) came up with more or less similar ranking of the four CSRO. These studies used different samples including business executives and students, so strictly speaking their data outputs are not comparable. But E-CSRO, however, is an ipsative scale measuring relativity rather than absolute values, so the patterns in prioritizing the four CSRO in these literature and also in this study, do offer some crude reference points on the relative importance of the four CSR dimensions.

In general, ranking of the four CSRO in these prior studies under different cultural contexts and time, somewhat concurred with the ranking of both the X and C groups at the preintervention stage of this study. The Economic dimension has consistently retained its top



position, while Discretionary was consistently at the bottom. The Legal and Ethical dimensions were mainly in the middle and might swap their positions sometimes (Burton et al., 2000; Edmondson & Carroll, 1999; Pinkston & Carroll, 1996). A more recent study have shown some contrary trends (Van den Heuvel, Soeters & Gössling, 2014) but there are validity issues with the findings that need to be addressed. So overall the prior literature and also this this study, indicate clearly that the Economic dimension as a CSRO continues to be recognized as dominant. Yet it should be noted that these studies were mainly cross-sectional research and did not involve intervention. Post-intervention scores of X (Table 4.6) shows the ranking is reshuffled in the descending order of Economic, Ethical, Discretionary and then Legal; whereas ranking in post-intervention C group maintains the same order of importance of Economic, Legal, Ethical and lastly Discretionary (Table 4.7).

There are lessons to be learnt from these results. First of all this study demonstrates the possibility for an intervention in developing CSRO. Overall results support the usefulness of this one-day and one-off activity in changing students' CSRO with the servicing component appears to have more direct and positive relationship with the changes in the CSRO of Discretionary, which in turn affect the relative importance of the others. Second, even though the intervention can be effective but the nature and design of an intervention needs to be carefully managed. A higher focus on a single dimension may mean the other dimensions are not equally addressed, hence affecting the resultant CSRO. Thus in order to meet with the preferred educational objectives, specific CSR dimensions need to be addressed with relevant learning activities.

Third, despite the success of the intervention in uplifting the importance of the Discretionary dimension in the X group, both the C and X group at both the pre-post intervention stage



maintain the dominance of the Economic dimension and rank it as being the most important. Such perceptions of students about what is the most important CSRO more or less align with the previous studies. However, with the implementation of an educational intervention, the prioritizing of CSRO can be changed. In this case, post-test ranking of Discretionary in X moves up from the bottom to the third most important CSR with scores close to the second CSRO dimension of Ethical. But Legal drops from the second place to the bottom. Therefore the intervention can be seen as a useful method of an overall teaching and learning strategy to influence students' CSRO. It can lend insight to the allocation of resources in the planning of co-curricular activities that aim to accomplish similar educational objectives. The extent the above findings call for changes or at the very least reflections on the business studies curriculum will be discussed in the following sections.

# 5.2 Implications to CSR Education – Curriculum Level

Although this study only aims to examine the effectiveness of a particular learning and teaching activity in influencing students' CSRO, interpretation of the results should not be restricted to one focal point, and can be expanded to other levels. The following two Sections 5.2 and 5.3 will explore several implications for CSR education. Section 5.2 focuses on issues at the curriculum level and 5.3 at the operational level. These issues on CSR education are being raised mainly because of their explicit or implicit relevance to the results of this study, and are not meant to be exhaustive. Section 5.2.1 examines what kind of curriculum space CSR education should have. Section 5.2.2 discusses the usefulness of a learning and teaching activity that mainly aims at developing CSRO or attitude formation as a learning outcome.



### 5.2.1 The curriculum space of CSR education

This study has experimented with an educational intervention in a particular learning mode and format. Though the effectiveness of the intervention in changing students' CSRO can be established, it is only an *ad hoc* co-curricular activity that has lasted for about seven hours, and it is bound to be fragmented. In order to ensure more sustainable impact, learning activities for CSR and the development in CSRO have to be institutionalized in the long-run as part of the formal curriculum. This brought up the issue of what kind of curriculum space CSR education should occupy.

As pointed out in Chapter 1, the concepts of BE and CSR are in many ways related (Matten & Moon, 2004; Singer, 1993) and overlapping (Schwartz & Carroll, 2008). From the literature under review, often findings on some general principles in the teaching and learning of BE are applicable to CSR education as well, and *vice versa*. To facilitate the discourse for Section 5.2 and 5.3, BE and CSR will be treated as a collective concept.

BE (by extension CSR in this case) can be taught as a standalone module/course or be embedded within other courses; Whitla (2011) called this a discrete or pervasive approach. Other scholars opined a foundation course followed by systematic infusion of the topic of BE/CSR across the business programme curriculum which was also a viable option (Ritter, 2006; Windsor, 2004). In a survey with 239 Deans of business schools reported by Woo (as cited in McDonald, 2004, p. 373), less than 10% of the business schools had a standalone core course on BE. From a later survey conducted by Christensen *et al.* (2007), it showed the percentage of the responding business schools with standalone BE course had grown into 25%, and 54.6% of them integrated BE or related topics throughout the curriculum.



A standalone course has the obvious advantage of easier administration and recruitment of teaching expertise (Hartman & Hartman, 2004), but this might risk giving the wrong impression to students that BE/CSR is an isolated discipline (Peppas & Disken, 2001, Shannon & Berl, 1997). Ethics diffuses in every aspect of businesses and is by no way a standalone topic. In fact a study by McDonald (2004) reported that after much reflection, a faculty of business chose to migrate their BE course from a standalone to an integrated mode. An integrated approach, however, is not without criticism. To what level and extent should the integration take place? Mere integration by infusing business ethics across the board without the support of a foundation course may trivialize the topic of ethics, making it suffer from superficiality (Haines, Ockree & Sollars, 2009) and ends up marginalizing the topic, while in fact it should not be at the margin at all (Hartman & Hartman, 2004).

Whatever curriculum place BE/CSR education will take remains a topic of on-going debate (Christensen et al., 2007; Gardiner & Lacy, 2005; Kolb et al., 2005; Pelton, Swanson & Windsor, 2005; Persons, 2012; Sobczak, Debucquet & Harvard, 2006). This issue should not be simply condensed into a polarized argument over standalone or integrated; compulsory or elective. As put forward by Setó-Pamies and Papaoikonomou (2015), the teaching of BE/CSR can certainly adopt a cross-disciplinary approach through distributing the topic across the curricular space; whether standalone or integrated within other courses as an elective or compulsory component, depends on individual situation. Obviously different institutions have different considerations with regard to curriculum design. After all, to add in a new course is likely to be done at the expense of other courses that involve political negotiation (Gardiner & Lacy, 2005). Succinctly, there is a necessity to look beyond the potential of a one-off intervention in developing students' CSRO and consider how to institutionalize the topic of CSR or development of CSRO in the formal curriculum so as to



best fit the individual organization.

# 5.2.2 Learning outcome - CSRO or CSR behaviours

Results of this study support the effectiveness of an intervention in influencing students' CSRO. Whether or not a CSR learning activity that succeeds in changing students' CSRO will always lead to compatible decisions and behaviours in the future remains unknown. As mentioned previously in Chapter 1, Cahn and Glass (2011) reported that students had displayed double standards when making ethical decisions under the context of personal versus public interest. Since ethical decisions will affect multiple stakeholders who may have conflicting objectives, cognitive dissonance and ethical dilemmas are quite unavoidable. There is no guarantee that moral attitude always correlates with ethical behaviour positively; or ethically minded students always behave ethically. It is therefore justifiable to further look into the usefulness of a study that only aims at changing attitudes towards CSR.

Learning outcomes are the key drivers behind a BE/CSR course, and clearly defined learning goals will make learning more effective (Cassidy, 2006). Before assessing the usefulness of a BE/CSR course or learning activity, it is imperative to first examine what are the expected learning outcomes (Sims & Felton, Jr., 2006). From the literature we found upon receiving BE/CSR education, it is common to expect that students should be able to become cognizant of the main theories, recognize ethical situations, articulate and discuss the issues in the language of ethics, develop ethical reasoning and informed judgments, apply such reasoning to decision -making, increase the proclivity to practice and or even to practice ethical behavior. (Hartman & Werhane, 2009; Høivik, 2004). Out of all these expected learning



outcomes, the ultimate is ethical behaviour. A study that only aims at influencing students' ethical attitude or orientations towards CSR such as this one obviously is not targeting at a behavioural learning outcome.

In general prior studies on the teaching and learning of BE/CSR mainly focused on attitude formation. Most of them would indicate that they had assisted students in attaining some kind of ethical/CSR literacy, raised their ethical awareness or development of CSRO, or enhanced students' ability in ethical reasoning and decision-making. They seemed to hint that the likelihood of ethical behaviours would increase as long as students are intellectually informed and mentally equipped on ethicality. Attitude does predispose behaviour, and attitude is one of the several factors that may influence and explain behaviour (Fishbein & Ajzen, 2010). Following the same vein, moral attitude together with other variables will affect a person's moral judgment and henceforth subsequent ethical behavior. The formation of moral stance or CSRO is not the terminal outcome of BE/CSR education, but arguably by preparing students mentally for the ethical challenges ahead they may have a higher chance to behave ethically in the future, justifying it is an equally valid learning outcome.

Apparently ethical behavior as a learning outcome of BE/CSR education still has not been given the attention that it deserves. The linkage between moral competencies and behavior remains a largely unexplored area which will be furthered in Section 5.5 Implications on Educational Research.



#### 5.3 Implications to CSR education – operational Level

Section 5.3 concentrates on the operational aspects of CSR education. The analysis in Section 5.1 reveals that the positive and significant change of pre/posttest Discretionary scores of the X group is probably related to the servicing experience at an NGO. So Section 5.3.1 further probes into the role of servicing experience as a learning method in BE/CSR education and highlights areas for improvement of the intervention. Section 5.3.2 identifies the implications to CSR teachers, namely the potential for team teaching and the ethical stance for those who teach BE/CSR subjects.

# 5.3.1 Learning and teaching method – the servicing experience

The content of a BE learning activity should not only have intellectual rigor but also consider the elements of practicality and applicability (Godsey, 2007). Knowledge has to be applied and transformed into other learning opportunities such as personal experience in order to be perceived as meaningful (Bransford, Sherwood, Hasselbring, Kinzer & Williams, 1990). Such experience is bound to be even more powerful in activating and transferring knowledge if it is conducted in an authentic context (Berryman & Bailey, 1992). Service learning can enrich learning and promote lifelong civic engagement (Claus & Ogden, 2004). This learning method provides opportunity for students to work in in a genuine setting that answers for the needs of both practicality and personalization of the learning experience. In fact the benefits of service learning in BE/CSR education are well evident (Boss, 1994; Cohen & Kinsey, 1994; Debeljuh & Destefano, 2005; Godfrey, 1999; Kenworthy-u'ren, 2008; Seider et al., 2011; Zlotkowski, 1996) and has already been referred to in Chapter 2 Section 2.3.



Through service learning, students will be exposed to different social milieu and human dynamics which become external stimuli to arouse internal development (Bulpitt & Martin, 2005). During the learning process, students may progress, regress or even digress, while internal transformation can take place simultaneously. Such transformation that arises from the servicing experience, however, can be minute, mildly incremental and often negligible. In order to maximize the benefits of service learning, it usually incorporates a process of self-reflection (Kendall, 1990; Johnson & Bozeman, 1998); and using a reflective approach can actually assist to connect tacit learning with explicit knowledge (Cunliffe, 2002).

The process of self-reflection requires students to examine their inner feelings and thoughts that arise from different circumstances and the people that they encounter, they can relate ethical theories to such experience, and contemplate what steps to take in the future (Eyler & Giles, 1996; Kolb, 1984). In order to capture this latent development and enable its assessment, students have to make them explicit perhaps through verbal or written communication. The usual practice is to require students to record their reflections in journals over a period of time, so that their latent changes and development can be translated into tangible and assessable outcomes (Cassidy, 2006). By stepping back and understanding changes in their own inner being, students can precipitate minute thoughts into a series of organized writing. As such the developmental process is concretized into visible forms that can be beneficial to both the students and teachers. After all, CSROs are about attitudinal development and formative assessment outcomes in the form of reflective journals over a longer period of time should be more relevant than purely summative assessment.

The design of this intervention was mainly inspired by Rossouw's (2002) concept in BE education in which and he also brought up the idea of self-reflection before making ethical



judgment. This intervention, however, did not require participants to engage in self-reflection after the servicing experience at Soap Cycling. The reason is that if participants have to conduct self-reflection, presumably they should be allowed to bring home their C-CSRO questionnaire, retrieve their thoughts and reflect on their experience before completing and returning the C-CSRO. If students are allowed to complete the C-CSRO at home, it is envisaged that the response rate might not be too optimistic. For after all this intervention is only a non-credit bearing co-curricular activity that lasted for a few hours, and it is hard to ensure students will go through the whole process and return their questionnaires.

In view of such concerns, students were given time to complete the C-CSRO after finished the servicing experience at the NGO instead, whereby they could think through their learning experience on-site, but no specific time and procedure was provided in the intervention to conduct self-reflection deliberately. As such the servicing experience at Soap Cycling partly meets with the requirement of service learning in its usual sense. Perhaps unknowingly selfreflection might have taken place during the time when participants filled in C-CSRO at the end of the intervention. Nonetheless this is not ideal to do reflection under a compressed timeframe. If time permits, self-reflection should be incorporated as a discrete learning activity forming part of the whole intervention, so that participants can reflect on and internalize their learning experience before constructing their perceived CSR reality and giving feedback on their CSRO.

Besides, if service learning is incorporated as part of an assessable component of a BE/CSR module, this may also involve quantitative and qualitative assessment rubrics, direct and indirect assessment, multiple assessors including teachers and on-the-job supervisor (Flannery & Pragman, 2008). If an integrated approach is adopted with CSR being embedded



across different business subjects, and at the same time with a service learning component, the implication to capture and evaluate students' learning outcome will be even more challenging.

### 5.3.2 Implications for teachers of CSR

Apart from understanding the *how* in teaching and learning CSR or developing CSRO, *who* will teach the subject is also important. Learning outcomes can be contingent upon teaching and *who* will teach will in turn affect *what* will be taught. From the discussion of the previous sections, it is worthwhile to at least highlight two indirect implications that are related to the teachers of CSR subjects. Firstly is the teacher's expertise; secondly is the ethical stance or CSRO of those who will teach the subject.

The multi-disciplinary nature of CSR makes it hard to find one speaker for this intervention who has a background that can cover the rather diversified areas of CSR. In order to present the topic with more all-rounded views to the participants, this intervention invited a number of speakers with different business backgrounds and expertise. Since the intervention is only a one-off activity, the problem of expertise can be resolved easily. If the topic of CSR is part of a course curriculum and CSR has to be introduced from different business angles e.g. IT, accounting, marketing and human resources management, apart from covering the technical and domain-specific knowledge, teachers of CSR related courses are expected to discuss their subject domain from a BE/CSR viewpoint as well.

While teachers are well versed with their own subject knowledge, they may not be so



prepared to teach from an ethical perspective. Some scholars suggested to alleviate the problem of teaching expertise of BE/CSR subjects by adopting a team-teaching approach with faculty members recruited from other business and even non-business units e.g. philosophy schools/departments; or by inviting speakers with a mix of specialism to share their insights (Brinkmann, Sims & Nelson, 2011). Regardless of the approach being used, team and shared teaching are more likely to happen in the area of BE/CSR as compared to other business disciplines. With a higher chance of team teaching, there will be extended implications for institutional support in staff development and performance appraisal, so that teachers can be motivated to take up teaching duties for the BE/CSR subject.

Growing from the issue of teaching expertise, another implication at the teacher's level that can affect the learning outcome of BE/CSR subjects is the ethical stance or CSRO of those who are teaching. BE involves moral judgment and decisions under a business context on what is right and wrong; such judgment can stem from norms and values (Freeman & Gilbert, 1988, Raiborn & Payne, 1990; Velasquez, 1999), and a person's moral or philosophical stance (Forsyth, 1980, 1992). Although BE is more value based, and CSR can be seen as more application oriented, essentially the concept of CSR is also open to different interpretations that can be cultural, religious, personal values or worldviews bound (Moratis et al., 2006). In other words both BE and CSR touch on ethical values or beliefs, which inevitably involve the process to clarify moral aspiration (Sims & Sims, 1991).

Some teachers are not so comfortable in discussing morally sensitive issues (Wilhelm, 2008) and they would rather facilitate students finding their own value system (DesJardins et al., 2006); while others simply prefer to take a more neutral stance and surrender to moral relativism and even uncertainty (Felton and Sims, 2005). At the end of the day if students can



address ethical issues more systematically, back up their argument and ethical choices with some kind of theories, ostensibly it can then be regarded as a job done. Yet the multitude of ethical theories may potentially lead to conflicting outcomes (Floyd, Xu, Atkins & Caldwell, 2013), making it hard to predict exactly what kind of ethical stance or CSRO and behavioural outcome to which a BE/CSR course will eventually lead to.

If team teaching is adopted as suggested earlier on in this Section, and when teachers from different disciplines may not even have compatible views on the same ethical issue, this may point towards a counter-productive learning situation (Norman, 2004). On top of this, the respective institutions' worldviews over business education may also shape the curriculum and influence the learning outcomes (Giacalone & Thopmson, 2006). Teachers' ethical stance or CSRO can frame the perspective and content of the teaching, and their impact on the learning outcomes are intricate and complicated issues that underpin the entire CSR education; basically this topic is raised here just to signpost for separate investigations.

# 5.4 Ecological Implications to other communities

The participants of this intervention are Chinese students enrolled in a sub-degree business programme. As mentioned in Chapter 1, the academic standing of a sub-degree student are quite comparable to a junior year university student, hence findings of this study that can bear ecological usefulness to university students at their first and sophomore years at least, with the potential to be extended to non-business students as well. Since all participants are of Chinese ethnic origin, this can also have implication to other Chinese community, including



business schools in Mainland China.

Redding once reckoned Hong Kong as a place where "materialism and pragmatism prevailed" (1990); in fact many cities in Mainland China are catching up quickly and facing similar social trends and challenges. China has gone through some dramatic economic transformation in the past few decades and has experienced tremendous success from its open door economic policy. In parallel with these achievements, are challenges to ethical beliefs and business practices. Corporate misconduct in China is being reported in the news from time to time, and there is no shortage of corporate frauds and crimes that have adversely affected people's health, lives and livings. Seemingly Chinese corporations and their executives' orientations towards CSR have yet to align with their economic achievement.

In the literature review, only very limited studies were found on the teaching and learning method for CSR or development of CSRO of business students in the Mainland. This could be explained by the fact that BE/CSR education and research in the western sense only began to appear in China's higher education sector since the 1990s (Zhou et al., 2009). Apparently, the Western notion of BE/CSR education started to take root at a much later date in China when compared with the more developed countries in the West, and in this respect there is certainly room for business schools in China to work on.

Wang and Juslin (2012) discovered that Mainland Chinese students have restricted understanding of CSR and this was not a commonly taught topic in the universities. But Wu (2003) found Chinese students from Taiwan and Mainland China showed significant improvement in ethical awareness after receiving BE education. This is echoed by Peppas and Yu (2009) that after going through an ethics course the Mainland Chinese students had



shown marked and positive differences in responding towards codes of ethics of a company than those who did not. So from these studies, it is reasonable to say that a research in understanding how to raise Hong Kong Chinese business students' ethicality or influence their CSRO is worth pursuing, for it can provide useful feedback to CSR education in the Mainland which still have much to develop.

Since joining the WTO in year 2000, the Chinese government and businesses alike have more incentive in adhering to international trade rules and practices such that they can be seen on par with international standards. This desire for recognition by world standard has spread to the academic field with some elite universities in China joining in the universities' ranking race. It is reasonable to expect that business schools in China will be more inclined to yield to the requirements from overseas accreditation bodies, among which the incorporation of BE/CSR education in the curriculum should be at the top of their list. Given the hope to gain more international recognition, market forces become a catalyst to pressurize business schools in China for reform and to develop BE/CSR education in the long run. With this need to boost BE/CSR education, a study in understanding how to develop Chinese business students' CSRO in Hong Kong should have meaningful implication to business education in the Mainland as well.

Yet it has to be pinpointed that the data sources that are used to elicit studies on the development of BE/CSR education in China are Western-centric and are largely US and European originated. And the literatures under review are all published in English which are still predominantly the mainstream academic writings on CSR at present. Considering it is possible that research conducted by Mainland China scholars are published in Chinese only, henceforth it is essential to perform further literature search for publications in Chinese



before generalizing on any specific conclusion in this respect.

#### 5.5 Implications for educational research

Educational research can set trends for educational policies and reforms, and the reverse is equally true. Implications from this study to educational research can be discussed from the perspectives of research scope, research methodology and method.

Cheng and Cheung (1995) suggested a comprehensive framework on education policy and the respective areas of research that can be divided into four frames: Frame One- background issues and principles that underlie policy formulation; Frame Two- policy formulation; Frame Three- policy implementation; and Frame Four- educational outcomes. Based on this framework, Cheng (2011) commented that when a research focuses on one particular frame only, it is a first order research (Figure 5.1), when research that can integrate topics across one or more frame this becomes a second or high order research (Figure 5.2). Borrowing this proposition by Cheng (email communication with Professor Cheng, Y.C. dated 13<sup>th</sup> June, 2016) (Appendix G), it is easier to see where the research scope of this study stands in the context of an educational regime, what it is contributing as well as what is lacking. This study has assessed the effectiveness of a CSR learning activity in influencing business students' CSRO, making it a first order research that fits well into Frame Four of the said framework.



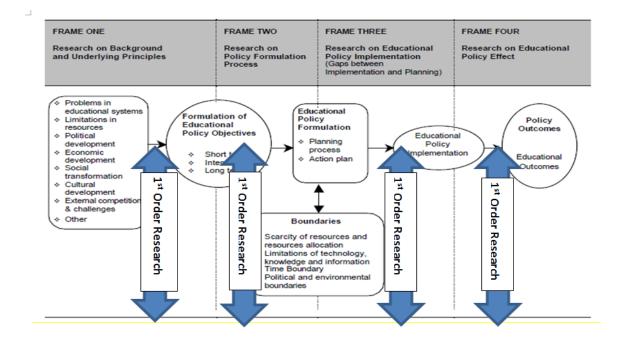


Figure 5.1. Life Cycle of Policy & 1st Order Research. Adapted form: Cheng, Y.C. (2011).

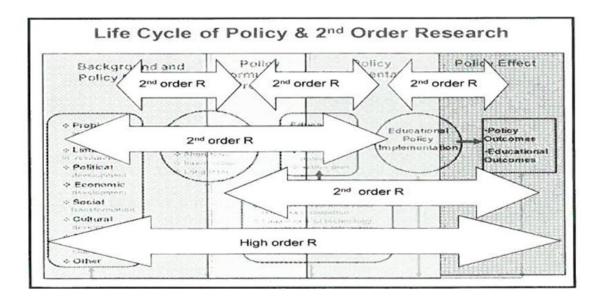


Figure 5.2. Life Cycle of Policy & 2nd Order Research. Adapted from: Cheng, Y.C. (2011).

Although the intervention appears useful in changing students' CSRO, such impact may only be temporary. The effectiveness of a single learning event is only a part of but not the overall effectiveness in CSRO education in the long-run. Without the ability to tie in with the broader objective of policy formulation, a standalone educational endeavor in changing CSRO



remains scrappy. As far as research scope is concerned, there are prospects to radiate outwards both vertically and horizontally, so that a unidimensional research interest on educational outcomes from one learning intervention can be turned into a study that can render more synergistic research outputs.

With regard to implications for research methodology and method, a number of observations are worth mentioning. From the literature, we found only a limited number of experimental studies that have some form of CSR teaching/learning intervention, showing there is room for more empirical studies using experimental research designs. Even for those that have implemented some kind of educational intervention, only limited ones actually tested the effectiveness of the activity with more robust statistical analysis. And this is especially true when the intervention is a semester long course. Also, using larger and randomized samples, or recruiting cross-institutional subjects can also raise the robustness of the methodology and generalizability of the findings. Besides, longitudinal studies are also short of but needed. Not only can longitudinal studies monitor the retention of CSRO changes over time, but it can be used to capture students' behavioural outcomes following the intervention. Perhaps, a multi methods research approach can be considered by incorporating qualitative focus group discussion with the participants to find out reasons for their changes in CSRO. There are of course foreseeable methodical difficulties to keep track on and assess behavioural outcomes, and not surprisingly behaviour-oriented studies for BE/CSR education are rarely found in the literature. Notwithstanding such difficulties, ethical behaviour is the ultimate learning outcome for BE /CSR education. And without knowing how far students have behaved according to the ethical ethos or CSRO that they have once demonstrated, a research void is permanently left open and that needs to be filled up. Though educational research to investigate on subsequent behavioural outcome of a CSR learning activity sounds aggressive, this is perhaps a long-term target to work towards gradually.



### 5.6 Chapter Summary

This Chapter has discussed some implications of this study. An intervention was administered to a group of Chinese students studying their Associate Degree in business management with a mix of CSR educational activities that aimed at influencing CSRO of the participants. Results have established the usefulness of the intervention in changing the students' CSRO, and the servicing opportunity at an NGO in particular seemed to be an effective driver in attitudinal change. Nevertheless, the teaching and learning of CSR should not end with one educational activity. Effective policy implementation calls for concerted efforts of the whole educational entity, including those who are responsible for teaching. Before any educational practices can be formalized and hammered in the curriculum, further research efforts in conjunction with other components of the educational regime should be considered.

Furthermore, an educational initiative that enhances CSR cognitive capabilities or reforms CSRO by no means can guarantee students will have commensurable behaviours in the future. Longitudinal research that spans across a longer period of time, or research that extends the research scope by integrating different areas in the educational regime can augment this study, and turn it into a more sustainable and impactful piece of research attempt. It is quite beyond the scope of this study to dwell into each and every implication that was being highlighted for discussion so far. Nonetheless a number of issues have been raised and discussed, and further research possibilities have been highlighted. The next chapter will explain the limitation of this study and provide a conclusion.



# Chapter 6

# LIMITATION AND CONCLUSION

The purpose of this study is to explore the effectiveness of a CSR learning and teaching activity in influencing the CSRO of a group of Chinese business students in Hong Kong. A.B. Carroll (1979, 1991a) conceptualized the diverse notion of corporate social responsibility (CSR) into the Pyramid of CSR framework with four dimensions: Economic, Legal, Ethical and Discretionary that provided a conceptual premise for this study to build on. Based upon the conceptual constructs of the CSR Pyramid, Aupperle (1982) initiated, Aupperle et al. (1983) and Aupperle (1984) enhanced the E-CSRO scale, a forced-choice measurement instrument that assesses the CSR orientations (CSRO) of individuals. This study has taken further steps by first translated the E-CSRO scale into Chinese (the C-CSRO) and established its validity with some Chinese students; secondly designed a CSR-themed educational intervention and implemented to a group of Chinese business students; thirdly used C-CSRO to capture pre-posttest changes in the experimental (X) and Control (C) group and evaluated the effectiveness of the intervention in bringing forth such changes. A number of findings have emerged and some implications were discussed. This Chapter has three sections. Section 6.1 is the limitation of this study, Section 6.2 highlights its significance and Section 6.3 is the conclusion.

# 6.1 Limitation

After going through the whole study, a number of limitations are found. Section 6.1.1



examines some of the theoretical and conceptual limitations of the Pyramid of CSR; Section 6.1.2 follows up on the caveats of the measurement scale; Section 6.1.3 discusses the insufficiencies and areas for improvement in the research design and Section 6.1.4 highlights the possibilities of other confounding variables.

#### 6.1.1 Theoretical and conceptual limitation

CSR itself is an amorphous concept that is inherently organic, making it a challenge to frame the concept into a single definition. Without a common conceptual platform, however, the conduct of CSR or CSRO related studies can be problematic. There is in fact no one single definition of CSR that can be applicable in all circumstances. But since its inception in 1979, A.B. Carroll's (1979, 1991a) Pyramid of CSR remains a very popular conceptual framework that had been used in numerous studies over a long period of time (Baden & Harwood, 2013). Despite enjoying wide acceptance, the CSR Pyramid has its own insufficiencies and some of which were covered initially under Section 2.2.2. Drawing on the experience of this study, this Section further discusses the conceptual limitation of A.B. Carroll's (1979, 1991a) framework.

The scope of CSR *per se* is ever changing. As time passes, our expectations on CSR change as well. Since the Pyramid of CSR first appeared in 1979, new social phenomena have gradually emerged and developed into recognizable domains. In a more recent CSR framework posited by Dahlsrud (2008), environmental protection stood out as an explicit CSR dimension in its own right. Contemporary notions like business sustainability and corporate governance have already become some mainstream CSR topics. This is particularly



evident from the speeches made by speakers of the intervention in this study, whom had frequently used environmental protection to illustrate CSR. With the appearance of these new areas in the CSR literatures, perhaps it is appropriate to review and update the taxonomy of the CSR Pyramid such that it can retain its durability against the test of time.

Secondly the conceptual design of the CSR Pyramid presents the four CSRO as discrete rather than overlapping variables. In reality, when management makes decisions, there can be a multitude of intentions that encompass both economic and non-economic considerations. For example, the philanthropic behaviours of a business can actually carry strategic value and are economically driven; ethical acts may not always be exercised with pure altruism but rather for the benefit of corporate reputation and market advantage (Windsor, 2006). In business reality, it is possible economic driven decisions can lead to social betterment and *vice versa*. Similarly, overlapping can be found among the non-economic CSR as well. As raised under Section 5.1, actually there are signs indicating possibilities of overlapping especially between the Ethical and Discretionary dimensions. The Ethical dimension can be taken as an intention instead of a dimension in CSR that underpins both the Discretionary and the Legal aspects.

The Pyramid of CSR framework was criticized for failing to offer normative clarity to identify the motives or principles behind the various CSR (Wood, 1991; Swanson, 1995). Wood (1991) did point out that the CSR Pyramid categorized CSR by domains of obligations that were enacted upon CSR principles, and they were neither CSR principles nor CSR motives themselves. In fact, Schwartz and A.B. Carroll (2003) had once suggested a three domain framework to analyze CSR from a perspective that comprised of the Economic, Legal and Ethical motives, which allowed overlapping among these motives. Nevertheless, their



suggestion did not receive the extent of academic applications and establishment as compared to the original Pyramid of CSR, and remained a conceptual option for further exploration. This issue of conceptual overlapping of A.B. Carroll's CSR constructs has ramifications on the measurement scales that are built upon the same conceptual premises, and this is further elaborated in the next section.

### 6.1.2 Limitation of the measurement scales

Based on the conceptual constructs of the CSR Pyramid, the measurement scale E-CSRO was designed in the early 1980s. Similar to the Pyramid of CSR, E-CSRO had been substantially applied and empirically supported by a number of studies over a long period of time as mentioned in Chapter 2 Section 2.5.2.3. If the categorization of A.B. Carroll's (1979, 1991a) conceptual framework has to catch up with the changing CSR trends, this will be true for E-CSRO as well. Throughout the course of the intervention, green practices were often cited by the guest speakers to illustrate how CSR was executed by their organizations, yet none of the item statements in E-CSRO explicitly touched on the aspects of environmental protection or sustainable business practices. Supposedly there is room for the item statements of E-CSRO to be revised such that it can be more representative to the current CSR terms and trends.

During the course of validating C-CSRO, it was found Pearson r between the non-CSRO were relatively weaker with Legal/Ethical .109, Ethical/Discretionary .075 and Legal/Discretionary -.144. The positive and weaker correlational statistics yielded between Ethical/ Discretionary in particular may indicate that these variables are not being differentiated from one another clear enough, supporting the potential in conceptual



overlapping. In his original work to compile and validate E-CSRO, Aupperle (1982) remarked that ".....the ethical and discretionary responsibilities are less clearly understood" (p. 60); also "the most discriminating difficulties were the ethical and discretionary categories. There was a tendency for some convergence between these two CSR components." (p. 97). This echoes the discussion of overlapping in the CSR conceptual constructs being raised in Section 5.1 and Section 6.1.1 above. All in all, evidence suggests the need to review the taxonomy of A.B. Carroll's (1979) CSR framework and accordingly the item statements of E-CSRO in the light of the more up-to-date CSR language; and a separate investigation to address the possibilities of conceptual overlapping among the CSR variables is needed.

As far as C-CSRO is concerned, even though overall statistical outputs did provide good evidence to support the equivalence of C-CSRO to its source scale and its replicability in a Chinese sample, it is still difficult to eliminate all inadequacies and non-equivalence in crosscultural translation completely. Besides, the usage of CFA as a validation procedure has limitation in itself also. CFA operates upon a model laden pre-requisite, and models may draw on heuristic views. This is true in this case where the entire study is based on the conceptual grounds of the CSR Pyramid. Intriguingly it is also this strong dependence on a hypothesized model and theoretical assumptions that statistical data being generated from CFA can confound its very own claims on the validity of the analysis, meaning that the validation can be judgmental and the limitation is self-perpetuating. Even though we may conclude that the CFA outcomes support a priori model to assess C-CSRO, it does not mean C-CSRO is the best model to measure CSRO, nor is it the best to be applied in a Chinese community. Perhaps we can only claim that the gap between what is being measured and what is believed to be measured had been kept to a reasonably acceptable level of tolerance (Aupperle, 1982). In order to enhance the usefulness of C-CSRO, more analysis of the



validity of the instruments in relation to other external criteria is helpful. The validation process can be further improved by extending it to other population segments, e.g., cross institutions, business and non-business students, student and non-student samples, so as to strengthen that the predictive value of C-CSRO.

# 6.1.3 Limitation of the research design

In spite of the promising results to support the intervention in changing students' CSRO, the pre/posttest comparison is conducted only between two time points and within a relatively short duration, making interpretation of the results on any causal relationships between variables have to be read with caution. Apart from this, the intervention was funded by a college as a co-curricular activity for students of the Business Management (BM) programme, thus it has to be open to all BM students to join, leaving little control over sample recruitment. Ideally randomized samples should be recruited so as to make this a true experimental design and minimize procedural confounding influence.

CSR and CSRO are multi-faceted concepts that encompass diversified issues, therefore posing challenges to design an intervention that can cover all aspects in a balanced manner. Resource constraints had limited the scale and duration of the intervention, making it hard to cover each CSRO equally with the same duration and extent, and such unevenness in the intervention content seems quite inevitable. Will similar results be obtained if the mode and emphasis of the intervention changed? Further experimentation in other form and format of learning activity of similar educational purpose is needed before we can land on an optimal option. Perhaps a preliminary remark that can only be drawn from the results at this stage is



that this intervention in a specific form of learning method is useful in changing students' CSRO. In a way this can be treated as a pilot study that help to identify impactful learning/teaching means and contribute to the overall design of a more substantial module or course in BE/CSR further down the road.

# 6.1.4 Other confounding variables

Businesses and business decisions do not exist in an ethical vacuum. Windsor (2006) pointed out the CSR concept is full of conflicting forces that are competing between personal intention and public policy, between economics and ethics, for example. Different personal variables can affect how individuals react to moral issues and moderate the results (Assudani, et al., 2011). Similarly, CSRO is a value loaded variable, its meaning and areas of importance may be perceived differently by different groups of people, factors like national culture and personal attributes all can play a potential part to influence CSRO (Fitzpatrick & Cheng, 2014), hence CSR education is context specific.

The participants of this study are sub-degree students enrolled with a Business Management Programme. They are of Chinese ethnic origin and Hong Kong permanent resident status coming from a narrow age range of 17-23. As a matter of fact, some key demographic profiles of the participants appeared to be rather homogeneous, and potential extraneous influences from demography are minimized. Although five personal attributes of the participants including: Year of study, Gender, Age, Religion and Prior CSR experience were tested and their potential influence have already been confirmed ignorable, it is always



plausible to have other hidden personal factors that may cause variability in the outcome and rival the hypothesis. Such personal variables may come from attitudes, norms and values (Douglas, Davidson & Schwartz, 2001); a persons' moral philosophy whether is idealist or relativist (Eastman, Eastman & Tolson, 2001); or a person's prior social service experience (Weber & Glyptis, 2000) etc. Therefore, other than the five aforesaid personal variables, more extended investigation to control influences from other personal attributes in relation to changes in CSRO is needed so as to identify possible sources of confounding effects.

# 6.2 Significance of this study and some future directions

With limited resources available, this study aimed to focus on testing the effectiveness of a single CSR-themed learning event in changing the participants' CSRO. Evidence indicated changes in the CSRO of a group of Chinese business students after going through the intervention, with tentative support that the servicing experience in particular appeared to favourably impact the participants' CSRO over the Discretionary aspect. Although Economic still remains as the most important CSRO in pre/post intervention of both the X and C groups, with deliberate efforts tailored to specific focus, it seems CSRO can be swayed accordingly.

Though findings of the intervention are rather positive, they may not be definitive. Through this study, a number of issues in the conceptual, topical and educational research aspects have been exposed for improvement or further investigation. These include the need to update the Pyramid of CSR and accordingly the measurement scale E-CSRO so as to reflect more closely the current trends in CSR development; improve and try out different forms and



formats of learning and teaching activities of different CSRO emphasis and test for their effectiveness. In order to understand if changes on CSRO that are being brought forth by the intervention is transient or retainable or even transferrable into compatible behaviours in the long run, it has to be answered by more sophisticated research that may involve a longitudinal and integrated approach. In addition, the success in changing CSRO through a CSR-themed intervention has open up wider array of further research possibilities, e.g., how to incorporate the teaching/learning activity used in this intervention into the curriculum map; the arrangement for community services agencies to partner up with business schools as providers for service learning opportunities; policy in motivating and evaluating teachers of the CSR subjects; the impact of systematic interventions over time to sustain business students' CSRO development; and the means of CSR education that can best help to retain students' positive CSRO after graduation and even turn into actions. In essence, this study has found the usefulness of a single learning intervention in influencing students' CSRO, but it has to be further studied in conjunction with the other topics of the educational regime so as to develop more synergistic research output.

Insofar as the resources permit, methodological issues that might affect the statistical outcomes of this study have been considered and addressed, such that a compromise between what would be realistically viable and what would be ideally achievable have been reached. Some tentative and promising results were summarized, certain assumptions were challenged and corresponding issues were discussed. At least, this study can claim that our understanding as to how a one-off educational activity influences CSRO has been enriched. And our understanding in changing CSRO in the Hong Kong Chinese students group can provide relevant feedback to business education in the Mainland. All in all, this study is only meant to contribute in a small way in understanding how effective is an intervention in



influencing a group of business students' CSRO, and the results merit further research in a number of related areas.

# 6.3 Conclusion

Businessmen once ran their businesses largely for economic gains and corporate social responsibilities neglected. Perhaps self-enlightenment were often due to and conscientiousness, some businesses began to operate in a more socially responsible and humanitarian manner, but these were only exceptions and far from being the norm. With cumulative efforts by both businessmen and scholars, coupled with years of evolution and enhancement, CSR has now become a valid business strategy, a key performance indicator and even a core business function (A.B. Carroll & Shabana, 2010). Not only businesses are now doing well by doing good (Drucker, 1984), likewise they are also doing good by doing well (Vogel, 2005). Businesses nowadays take pride in being seen as socially responsible. Doubtless, CSR has already grown into a fundamental principle in the business world, and such recognition is expected to go on in the foreseeable future.

In the midst of all these encouraging signs from the industry and the public to support CSR, the world was hard hit by a series of high profile and mega business scandals at the turn of the century, such as Enron (2000), World.Com (2001) Vivendi Parmalat (2003) and Lehmann Brothers (2008). These crises were mainly caused by corporate social irresponsibilities and some of the impacts that they had brought forth to our societies still linger on today. These incidents have sent out an alarming message and that is, what business schools have been



teaching about BE/CSR might not be as effective as we have assumed.

Business schools are the key business education provider and without contention they are important socializing agents in shaping students' value systems (Lämsä, Vehkaperä, Puttonen, & Pesonen, 2008). They are entrusted with the duty to build up moral character of future business professionals and leaders who can contribute to our social well-being. Although business schools do embrace the idea to include the topics of BE/CSR/sustainability in their curriculum (Christensen et al., 2007), both scholars and business practitioners found that business graduates generally still failed to acquire sound business ethics from their education (Sigurjonsson, Arnardottir, Vaiman, & Rikhardsson, 2015). Moreover, it was regrettably found that students who belong to the millennials tend to be more motivated by economic rewards than the other generations (Chen & Choi, 2008; Leveson & Joiner, 2014; Twenge, Campbell, Hoffman & Lance, 2010); and they may have more heightened need for extrinsic rewards over altruistic values (Ng, Schweitzer & Lyons, 2010). It is not intended here to jump into generational stereotyping, but there are indeed reasons for concern. In other words, today's business students are likely to struggle in their future career over decisions that have trade-offs between ethicality and profitability.

Faced with the threat of corporate failures that mainly stem from unethical deeds of business executives, there are in fact opportunities to be seized by business education providers in rolling out educational reforms. Cheng (2005, 2007) summarized the key trends of education reforms since the 1980s into three waves of paradigm shifts: the first wave came in the 1980s that mainly focused on improving teaching and learning methods; the second started in the 1990s that shifted towards stakeholders' satisfaction and schools' accountability; the third came by at the turn of this century that aimed for educational reforms and research with



future and global relevance. Similarly in Power's (2009) vision of a blueprint for educational research by 2020, he posited that globalization has inevitably led to a reordering of priorities and hence the need for redesigning educational strategies. Such observations by Cheng and Power are revealing to business education providers.

Globalization has opened up enormous opportunities but also unprecedented risks at the same time. It has blurred the geographic boundary of many places, making some indigenous social issues to become cross-countries problems. Business decisions can now easily penetrate across geographical borders and send out domino effects around the world in no time, making our societies more vulnerable than ever. Accompanied with the economic benefits we can reap from globalization, concomitantly we do need to guard our world with more ethically vigilant people, and business schools have a duty to respond to the calls of our time by preparing students of higher ethicality. All these factors make the role of business schools even more critical, and the need to identify effective ways in developing CSRO all the more essential. It is against such social backdrops that this study was being put forward and conducted.

Ultimately we want to see sound educational strategies in building up the character of students as socially responsible corporate leaders. Business schools, however, appear to be more well-versed in *why* CSR education is needed but less sure about *how* this can be done effectively. They know *what* BE/CSR education is for but have yet to follow through with an answer for the *so what*. Simply put, there is already a firm consensus to incorporate CSR in the curriculum of business education, but without effective learning approach and pedagogy to achieve the desired learning outcomes, any good intentions will appear fragile and futile.



Regardless of what kind of educational method is used, the need to uplift business students with higher ethical standards and stronger sense of social responsibility is obvious, and we can no longer afford to leave this task of educating business students' ethicality to chance (Dihman, 2008). As rightly pointed out by Hoiles (1989) long ago that business schools have to help students in seeing that the business profession can be equally noble and socially useful, if not more, as compared to the other professions such as teachers and doctors. Students have to truly realize the potential impact they may bring forth to our society as future business practitioners. Not only this, they can in fact use their business careers as a direct and respectable undertaking for the social good. To this end, business students have to be equipped with some kind of moral compass so as to guide their way through the corporate jungles, before they can come out to make our world a better place. What kind of educational strategy and method are most appropriate to help business students in building up moral character and positive CSRO such that they can stand against ethical challenges in their business career ahead? The answer to this question calls for continuous efforts of investigation and has yet to be found.



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## 各位同學:

這是一項有關商科學生如何看 "公司社會責任" (Corporate Social Responsibility) 的研究。

此研究由香港教育學院講座教授 Kerry J. Kennedy 監督,研究員為 Daphne WONG Po May。而此研究之進行,已獲香港教育學院及香港 理工大學之香港專上學院批准。

閣下有權在任何時候決定參與或退出此研究,更不會因此引致任何不良 後果。凡有關**閣下的資料會絕對保密**,研究結果只作<u>不記名分析</u>, 完全不 涉及個人資料。研究完成後所有問卷將會被銷毀。

如閣下有任何意見,可與香港教育學院人類實驗對象操守委員會聯絡(電郵: hrec@ied.edu.hk); 或想更多了解此研究請聯絡 Daphne WONG Po May (電郵 ccdaphne@hkcc-polyu.edu.hk)或 Professor Kerry J. Kennedy (電郵 kerryk@ied.edu.hk)。

您的真實意見對此研究十分重要,感謝您的支持。

Daphne WONG Po May

研究員(香港專上學院講師)



## Appendix B Emails with Prof. K. Aupperle

From: Aupperle,Kenneth E [mailto:eka@uakron.edu]Sent: Friday, August 05, 2011 5:44 AMTo: Daphne Wong [HKCC]Subject: RE: Request for the CSRO measurement instrument

Daphne,

I apologize for the delay. Too often I just get disconnected from the world, especially in the Summer months.

Yes, you may use the CSR instruments and I have attached them for your perusal and use. If you have any questions, feel free to respond and I will do a better job in getting back to you promptly.

Most Sincerely,

Ken

From: Daphne Wong [HKCC] [mailto:ccdaphne@hkcc-polyu.edu.hk]
Sent: Friday, July 29, 2011 3:06 AM
To: kaupperle@uakron.edu
Subject: Request for the CSRO measurement instrument

Hi Professor Aupperle,

I refer to my email to you earlier as appended below.

I beg for your kind consideration in granting me access to your questionnaires in measuring individual's CSRO.

In fact I have also communicated with Professor Brian Burton of WWU who had condensed and slightly reworded your questionnaire to a simplified version to study CSRO of US and Hong Kong university students in year 2000. As you are the original author of the instrument, hence the approval must come from you.



Look forward to receiving your favorable reply in anticipation, and thank you once again.

Best Regards,

Daphne Wong

From: Daphne Wong [HKCC]Sent: Friday, July 22, 2011 11:43 AMTo: <u>kaupperle@uakron.edu</u>Subject: Request for the CSRO measurement instrument

Professor Aupperle,

I am a lecturer of the Hong Kong Community College, an affiliate institution of the Hong Kong Polytechnic University. Currently I am planning for a study on CSR orientation of business students in Hong Kong at the tertiary level.

Hence, I would like to request for your kindness in allowing me to use your measurement instruments in that assesse individual's CSRO in my study.

I look forward to receiving your favorable reply and in case there is anything that you need to know further, feel free to ask me.

Thank you very much in advance.

Yours sincerely,

Daphne Wong

Assistant Program Leader

**Division of Business** 

Hong Kong Community College

Hong Kong Polytechnic University



## Appendix C E-CSRO (15 questions)

Based on the relative importance and application to your firm, allocate up to, but not more than, 10 points to each set of four statements. For example, you might allocate points to a set of statements as follows:

Total = 10 points	Total = 10 points	Total = 7 points
<u><b>D</b></u> = 1	<u>D = 7</u>	$\underline{\mathbf{D}} = 0$
C = 2 or	C = 0 or	C = 3
B = 3	<b>B</b> = 2	<b>B</b> = 4
$\mathbf{A} = 4$	$\mathbf{A} = 1$	$\mathbf{A} = 0$

It is important to perform in a manner consistent with:

- \_\_\_\_\_A. expectations of maximizing earnings per share
- \_\_\_\_\_ B. expectations of government and the law
- \_\_\_\_\_ C. the philanthropic and charitable expectations of society
- \_\_\_\_\_ D. expectations of societal mores and ethical norms

It is important to be committed to:

- \_\_\_\_\_ A. being as profitable as possible
- \_\_\_\_\_ B. voluntary and charitable activities
- \_\_\_\_\_ C. abiding by laws and regulations
- \_\_\_\_\_ D. moral and ethical behavior

It is important to:

```
_____ A. recognize that the ends do not always justify the means
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- \_\_\_\_\_ B. comply with various federal regulations
- \_\_\_\_\_ C. assist the fine and performing arts
- \_\_\_\_\_ D. maintain a strong competitive position

It is important that:

- \_\_\_\_\_ A. legal responsibilities be seriously fulfilled
- \_\_\_\_\_B. long-term return on investments is maximized
- \_\_\_\_\_ C. managers and employees participate in voluntary and charitable activities within their local communities

\_\_\_\_\_ D. when securing new business, promises are not made which are not intended to be fulfilled

- 5. It is important to:
- \_\_\_\_\_ A. allocate resources on their ability to improve long-term profitability
- \_\_\_\_\_B. comply promptly with new laws and court rulings
- \_\_\_\_\_ C. examine regularly new opportunities and programs which can improve urban and community life
- \_\_\_\_\_ D. recognize and respect new or evolving ethical/moral norms adopted by society

It is important to:

- \_\_\_\_\_ A. provide assistance to private and public educational institutions
- \_\_\_\_\_ B. ensure a high level of operating efficiency is maintained
- \_\_\_\_\_ C. be a law abiding corporate citizen
- \_\_\_\_\_ D. advertise goods and services in an ethically fair and responsible manner

## It is important to:



- \_\_\_\_\_ A. pursue those opportunities which will enhance earnings per share
- \_\_\_\_\_ B. avoid discriminating against women and minorities
- \_\_\_\_\_ C. support, assist, and work with minority-owned businesses
- D. prevent social norms from being compromised in order to achieve corporate goals

It is important that a successful firm be defined as one which:

\_\_\_\_\_A. is consistently profitable

\_\_\_\_\_ B. fulfills its legal obligations

- \_\_\_\_\_ C. fulfills its ethical and moral responsibilities
- \_\_\_\_\_ D. fulfills its philanthropic and charitable responsibilities

It is important to monitor new opportunities which can enhance the organization's:

- \_\_\_\_\_ A. moral and ethical image in society
- \_\_\_\_\_B. compliance with local, state, and federal statutes
- \_\_\_\_\_ C. financial health
- \_\_\_\_\_ D. ability to help solve social problems

It is important that good corporate citizenship be defined as:

- \_\_\_\_\_ A. doing what the law expects
- \_\_\_\_\_B. providing voluntary assistance to charities and community organizations
- \_\_\_\_\_ C. doing what is expected morally and ethically
- \_\_\_\_\_ D. being as profitable as possible

It is important to view:

\_\_\_\_\_A. philanthropic behavior as a useful measure of corporate performance

\_\_\_\_\_B. consistent profitability as a useful measure of corporate performance



\_\_\_\_\_ C. compliance with the law as a useful measure of corporate performance

\_\_\_\_\_ D. compliance with the norms, mores, and unwritten laws of society as useful measures of corporate performance

It is important to:

- \_\_\_\_\_ A. recognize that corporate integrity and ethical behavior go beyond mere compliance with laws and regulations
- \_\_\_\_\_ B. fulfill all corporate tax obligations
- \_\_\_\_\_C. maintain a high level of operating efficiency
- \_\_\_\_\_D. maintain a policy of increasing charitable and voluntary efforts over time

It is important to:

- \_\_\_\_\_ A. assist voluntarily those projects which enhance a community's "quality of life"
- B. provide goods and services which at least meet minimal legal requirements
- \_\_\_\_\_ C. avoid compromising societal norms and ethics in order to achieve goals
- \_\_\_\_\_ D. allocate organizational resources as efficiently as possible

It is important to:

- \_\_\_\_\_ A. pursue only those opportunities which provide the best rate of return
- \_\_\_\_\_B. provide employment opportunities to the hard-core unemployed
- \_\_\_\_\_ C. comply fully and honestly with enacted laws, regulations, and court rulings
- D. recognize that society's unwritten laws and codes can often be as important as the written



It is important that:

- \_\_\_\_\_ A. philanthropic and voluntary efforts continue to be expanded consistently over time
- \_\_\_\_\_ B. contract and safety violations are not ignored in order to complete or expedite a project
- \_\_\_\_\_ C. profit margins remain strong relative to major competitors
- \_\_\_\_\_ D. "whistle blowing" not be discouraged at any corporate level



## Appendix D Refined E- CSRO with revised instructions

Below are 13 sets of statements. Assume you are considering from the perspective of your firm, evaluate the relative importance of each of the statement within its own set and give scores to each one of them.

10 scores is the maximum that you can give to one set of statement. If you think a statement is very important within the set, maximum score you can give is 10 to a single statement; if you think the statement is very unimportant, the minimum score you can give is 0. Within each set, you can give the same score to different statements. The total score for a set of statements can be 10 to 0. Scores should be integers.

For example, you might allocate points to a set of statements as follows:

$Total = 10 \ points$	$Total = 10 \ po$	oints Total = 7 points
<u><i>D</i></u> = 1	<u><i>D</i></u> = 7	$\underline{D} = 0$
C = 2 or	C = 0 or	<i>C</i> = <i>3</i>
<i>B</i> = <i>3</i>	B=2	B=4
A=4	A = I	A = 0

#### For example, you might allocate points to a set of statements as follows:

$\mathbf{A} = 4$	$\mathbf{A} = 1$	$\mathbf{A} = 0$
B = 3	<b>B</b> = 2	<b>B</b> = 4
C = 2 or	C = 0 or	C = 3
<u><b>D</b> = 1</u>	<u>D = 7</u>	$\underline{\mathbf{D}} = 0$
Total = 10 points	Total = 10 points	Total = 7 points



It is important to perform in a manner consistent with:

- \_\_\_\_\_A. expectations of maximizing earnings per share
- \_\_\_\_\_B. expectations of government and the law
- \_\_\_\_\_ C. the philanthropic and charitable expectations of society
- \_\_\_\_\_D. expectations of societal mores and ethical norms

It is important to be committed to:

- \_\_\_\_\_ A. being as profitable as possible
- \_\_\_\_\_ B. voluntary and charitable activities
- \_\_\_\_\_ C. abiding by laws and regulations
- \_\_\_\_\_ D. moral and ethical behavior

It is important that:

- \_\_\_\_\_A. legal responsibilities be seriously fulfilled
- \_\_\_\_\_B. long-term return on investments is maximized
- \_\_\_\_\_ C. managers and employees participate in voluntary and charitable activities within their local communities
- \_\_\_\_\_ D. when securing new business, promises are not made which are not intended to be fulfilled

It is important to:

- \_\_\_\_\_ A. allocate resources on their ability to improve long-term profitability
- \_\_\_\_\_B. comply promptly with new laws and court rulings
- \_\_\_\_\_ C. examine regularly new opportunities and programs which can improve



urban and community life

\_\_\_\_\_ D. recognize and respect new or evolving ethical/moral norms adopted by society

It is important to:

- \_\_\_\_\_ A. provide assistance to private and public educational institutions that are in need
- \_\_\_\_\_B. ensure a high level of operating efficiency is maintained
- \_\_\_\_\_ C. be a law abiding corporate citizen
- \_\_\_\_\_ D. advertise goods and services in an ethically fair and responsible manner

It is important that a successful firm be defined as one which:

- \_\_\_\_\_A. is consistently profitable
- \_\_\_\_\_ B. fulfills its legal obligations
- \_\_\_\_\_ C. fulfills its ethical and moral responsibilities
- \_\_\_\_\_ D. fulfills its philanthropic and charitable responsibilities

It is important to monitor new opportunities which can enhance the organization's:

- \_\_\_\_\_ A. moral and ethical image in society
- \_\_\_\_\_ B. compliance with local, state, and federal statutes
- \_\_\_\_\_ C. financial health
- \_\_\_\_\_ D. ability to help solve social problems

It is important that good corporate citizenship be defined as:

\_\_\_\_\_ A. doing what the law expects



- B. providing voluntary assistance to charities and community organizations
- \_\_\_\_\_ C. doing what is expected morally and ethically
- \_\_\_\_\_ D. being as profitable as possible

It is important to view:

- \_\_\_\_\_ A. philanthropic behavior as a useful measure of corporate performance
- \_\_\_\_\_B. consistent profitability as a useful measure of corporate performance
- \_\_\_\_\_ C. compliance with the law as a useful measure of corporate performance
- \_\_\_\_\_ D. compliance with the norms, mores, and unwritten laws of society as useful measures of corporate performance

It is important to:

- \_\_\_\_\_ A. assist voluntarily those projects which enhance a community's "quality of life"
- B. provide goods and services which at least meet minimal legal requirements
- \_\_\_\_\_ C. avoid compromising societal norms and ethics in order to achieve goals
- \_\_\_\_\_ D. allocate organizational resources as efficiently as possible

It is important to:

- \_\_\_\_\_ A. pursue only those opportunities which provide the best rate of return
- \_\_\_\_\_B. provide employment opportunities to the hard-core unemployed
- C. comply fully and honestly with enacted laws, regulations, and court rulings



\_\_\_\_\_ D. recognize that society's unwritten laws and codes can often be as

important as the written

It is important to:

- \_\_\_\_\_ A. recognize that the ends do not always justify the means
- \_\_\_\_\_ B. comply with various laws and regulations
- \_\_\_\_\_ C. assist the arts fine and performing arts
- \_\_\_\_\_ D. maintain a strong competitive position

It is important to:

- \_\_\_\_\_ A. recognize that corporate integrity and ethical behavior go beyond mere compliance with laws and regulations
- \_\_\_\_\_ B. fulfill all corporate tax obligations
- \_\_\_\_\_C. maintain a high level of operating efficiency
- \_\_\_\_\_D. maintain a policy of increasing charitable and voluntary efforts over time



# 評分指引

以下有十三組文字,每一組有4個句子.

假設您從一間公司的角度考慮,請因應每個句子於其組別內的相對重要性給其 逐一評分.

若您認為某一句子於其組別中十分重要,最高可給該句子 10 分,若您認為是最不 重要者,最低可給該句子 0 分. 您也可以在同一組別內給予不同句子相同分數. 而每個分數應為整數.

但每組4個句子之總和分數只限0-10分.

例如你的分數分配可以是:

例子一		例子二		例子三
<u>分數</u>		<u>分數</u>		<u>分數</u>
<u>4</u> A		<u>1</u> A		<u>0</u> A
<u>2</u> B	或	<u>2</u> B	或	<u>4</u> B



總分= <u>10</u>	總分= <u>8</u>	總分= <u>7</u>	
<u>3</u> D	<u>5</u> D	<u>0</u> _D	
<u>    1    </u> C	<u> </u>	<u>3</u> C	

1. 一間公司的表現,重要是能夠乎合:

## 分數

\_\_\_\_\_\_A. 替股東賺取最大盈利的期望

\_\_\_\_\_ B. 政府及法律的要求

\_\_\_\_\_ C. 社會對企業參與慈善公益的期望

\_\_\_\_\_D. 社會傳統慣例及道德規範

總分=\_\_\_\_\_(最多 10 分,最少 0 分)

2. 一間公司有以下的承担是重要的:

分數

- \_\_\_\_\_\_A. 盡可能 賺取最高利潤
- \_\_\_\_\_B. 参與義務及慈善活動
- \_\_\_\_\_\_C. 遵守法律法規
- \_\_\_\_\_ D. 所作所為合乎道德規範
- 總分= \_\_\_\_\_ (總分最多 10 分, 最少 0 分)

### 3. 一間公司重要的是:

## <u>分數</u>



## \_\_\_\_\_A. 嚴格履行法律責任

B. 讓其投資獲得最豐厚的長線回報

C. 其管理層及員工參與社會上的義務及慈善活動

\_\_\_\_\_D. 當爭取新生意時*,* 不作虛假承諾

總分=\_\_\_\_\_ (總分最多 10 分, 最少 0 分)

4. 一間公司重要的是:

#### 分數

A. 有能力妥善分配資源以增進長遠利益

\_\_\_\_\_B. 即時遵守新修訂的法例及對其對其有關之法庭裁決

- \_\_\_\_\_C. 時常審視能對改善社會民生作出貢獻的新機會
- D. 明白及尊重社會上所採納及不斷演變中的新道徳規範

總分=\_\_\_\_\_ (總分最多 10 分, 最少 0 分)

#### 5. 一間公司重要的是:

## 分數

A. 對有需要的教育機構提供協助

\_\_\_\_\_B. 保持高效率運作

C. 作一個奉公守法的"企業公民"

\_\_\_\_\_D. 以道德, 公平及負責任的手法推銷商品和服務

**總分=\_\_\_\_\_** (總分最多 10 分,最少 0 分)



6. 成功公司的定義重要是能夠:

## <u>分數</u>

- \_\_\_\_\_\_A. 恆常保持有盈利
- \_\_\_\_\_\_ B. 履行法律責任
- \_\_\_\_\_C. 履行道德責任
- D. 履行慈善公益責任
- 總分=\_\_\_\_\_ (總分最多 10 分, 最少 0 分)

7. 對一間公司而言,重要是能夠檢視新機遇以強化公司本身:

#### <u>分數</u>

A. 於社會眼中的道德形像

- \_\_\_\_\_ B. 奉公守法的能力
- \_\_\_\_\_C. 的財政狀況穩健
- \_\_\_\_\_D. 幫助解決社會問題的能力
- **總分=\_\_\_\_\_** (總分最多 10 分, 最少 0 分)

8. 當定義何為良好的 "企業公民" 時, 重點是公司:

### 分數

#### \_\_\_\_\_A. 能依法辦事



- \_\_\_\_\_ B. 對社福機構能夠提供義務援助
- C. 所作所為合乎一般道德標準
- \_\_\_\_\_ D. 盡可能賺取最高利潤
- 總分= \_\_\_\_\_ (總分最多 10 分, 最少 0 分)
- 9. 在一間公司來看,要有助量度其表現,重要的是該公司:

#### 分數

- \_\_\_\_\_\_A.參與 公益慈善活動
- \_\_\_\_\_B. 能恆常維持有盈利
- \_\_\_\_\_C. 能奉公守法
- D. 能 遵循社會常理慣例及不成文之常規行事
- 總分= \_\_\_\_\_ (總分最多 10 分, 最少 0 分)

#### 10. 對一間公司而言,重要是能:

#### 分數

- \_\_\_\_\_A. 義務協助能提昇社會大眾生活素質的公益項目
- \_\_\_\_\_B. 提供商品/服務時要乎合基本的法律要求
- \_\_\_\_\_C. 避免為求達到目的而不顧及社會道德規範
- D. 盡量有效率地分配公司的資源
- 總分= \_\_\_\_\_ (總分最多 10 分, 最少 0 分)



11. 對一間公司而言, 重要是:

## <u>分數</u>

- \_\_\_\_\_ A. 只追求能提供最佳回報率的商機
- \_\_\_\_\_ B. 為長期失業者提供就業機會
- \_\_\_\_\_ C. 全心全意遵從法律法規及與其有關之法律裁決
- \_\_\_\_\_\_D. 認同社會上之道德常規, 雖非正式法律, 往往同樣重要
- **總分=\_\_\_\_\_** (總分最多 10 分, 最少 0 分)

#### 12. 對一間公司而言, 重要是能:

# 分數

- \_\_\_\_\_A. 明白不可為求目的*,* 不擇手段
- \_\_\_\_\_B. 奉公守法
- \_\_\_\_\_C. 支持藝術及表演藝術活動
- \_\_\_\_\_D. 保持其競爭力強勢地位
- **總分=\_\_\_\_\_** (總分 10 分, 最少 0 分

13. 對一間公司而言, 重要是能:

### 分數

\_\_\_\_\_A. 明白其誠信及道德操守行為*,* 是不單止於遵行法律法規

\_\_\_\_\_B. 履行其繳稅責任

\_\_\_\_\_C. 保持高效率運作



D. 保持一個積極参予公益慈善事務的政策

總分=\_\_\_\_\_ (總分最多 10 分, 最少 0 分)

由於此問卷必須作個人對比分析,請務必回答以下資料。

 學生證 ID No :
 就讀 課程: Associate in Business (\_\_\_\_\_\_)

 性別:
 \_\_\_\_\_\_

## 以下問題請 刪除 不適合選項

a. 你是否中國裔的香港永久居民? 是 /不是

b. 年齡: 你是否 18 歲或以上? 是 /不是

c. 你有沒有宗教信仰? 有 / 沒有。 如回答有, 是那一個宗教?

d. 你以前有否參加過有關公司社會責任(Corporate Social Responsibilities) 的 活動 或 講 座 或 課程? 有 / 沒有



# Appendix F Syntax for C-CSRO models

## \* Base Model.

GLM PreEcon PostEcon PreLegal PostLegal PreEthical PostEthical PreDisc PostDisc BY Group Year Age Gender Religious CSRExperience

/WSFACTOR=PrePost 2 Polynomial

/MEASURE=Econ Legal Ethical Disc

/METHOD=SSTYPE(3)

/CRITERIA=ALPHA(.05)

/PRINT=DESCRIPTIVE ETASQ OPOWER Parameter

/WSDESIGN=PrePost

/EMMEANS =TABLES(Group\*Prepost) COMPARE(Group) ADJ(BONFERRONI)

/EMMEANS=TABLES(Group\*PrePost) COMPARE(PrePost) ADJ(BONFERRONI)

/DESIGN=Group Year Age Gender Religious CSRExperience.

# Second Model with third order factor interaction

GLM PreEcon PostEcon PreLegal PostLegal PreEthical PostEthical PreDisc PostDisc BY Group Year Age Religious Gender CSRExperience

/WSFACTOR=PrePost 2 Polynomial

/MEASURE=Econ Legal Ethical Disc

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/CRITERIA=ALPHA(.05)

/PRINT=DESCRIPTIVE ETASQ OPOWER Parameter

/WSDESIGN=PrePost

/DESIGN=Group Year Age Religious Gender CSRExperience Group\*Year Group\*Age Group\*Religious Group\*CSRExperience

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/EMMEANS=TABLES(Group\*Year\*PrePost) COMPARE(Group) ADJ(BONFERRONI)

/EMMEANS=TABLES(Group\*Year\*PrePost) COMPARE(Year) ADJ(BONFERRONI)



/EMMEANS=TABLES(Group\*Year\*PrePost) COMPARE(PrePost) ADJ(BONFERRONI) /EMMEANS=TABLES(Group\*Age\*PrePost) COMPARE(Group) ADJ(BONFERRONI) /EMMEANS=TABLES(Group\*Age\*PrePost) COMPARE(Age) ADJ(BONFERRONI) /EMMEANS=TABLES(Group\*Age\*PrePost) COMPARE(PrePost) ADJ(BONFERRONI) /EMMEANS=TABLES(Group\*Gender\*PrePost) COMPARE(Group) ADJ(BONFERRONI) /EMMEANS=TABLES(Group\*Gender\*PrePost) COMPARE(Gender) ADJ(BONFERRONI) /EMMEANS=TABLES(Group\*Gender\*PrePost) COMPARE(PrePost) ADJ(BONFERRONI) /EMMEANS=TABLES(Group\*Gender\*PrePost) COMPARE(PrePost) ADJ(BONFERRONI) /EMMEANS=TABLES(Group\*Religious\*PrePost) COMPARE(Group) ADJ(BONFERRONI) /EMMEANS=TABLES(Group\*Religious\*PrePost) COMPARE(Group) ADJ(BONFERRONI) /EMMEANS=TABLES(Group\*Religious\*PrePost) COMPARE(PrePost) ADJ(BONFERRONI) /EMMEANS=TABLES(Group\*Religious\*PrePost) COMPARE(PrePost) ADJ(BONFERRONI) /EMMEANS=TABLES(Group\*CSRExperience\*PrePost) COMPARE(CSRExperience) ADJ(BONFERRONI) /EMMEANS=TABLES(Group\*CSRExperience\*PrePost) COMPARE(CSRExperience) ADJ(BONFERRONI)

# Extended base model \* 1 interaction of Personal Attribute at a time.

GLM PreEcon PostEcon PreLegal PostLegal PreEthical PostEthical PreDisc PostDisc BY Group Year Age Gender Religious CSRExperience

/WSFACTOR=PrePost 2 Polynomial

/MEASURE=Econ Legal Ethical Disc

/METHOD=SSTYPE(3)

/CRITERIA=ALPHA(.05)

# /PRINT=DESCRIPTIVE ETASQ OPOWER Parameter

/WSDESIGN=PrePost

/DESIGN=Group Year Age Gender Religious CSRExperience Group\*Year

/EMMEANS=TABLES(Group\*PrePost) COMPARE(Group) ADJ(BONFERRONI)

/EMMEANS=TABLES(Group\*Year\*PrePost) COMPARE(Group) ADJ(BONFERRONI)

/EMMEANS=TABLES(Group\*Year\*PrePost) COMPARE(Year) ADJ(BONFERRONI)

/EMMEANS=TABLES(Group\*Year\*PrePost) COMPARE(PrePost) ADJ(BONFERRONI).



# Extended base model \* 1 interaction of Personal Attribute at a time.1 interaction at a time.

GLM PreEcon PostEcon PreLegal PostLegal PreEthical PostEthical PreDisc PostDisc BY Group Year Age Gender Religious CSRExperience

/MEASURE=Econ Legal Ethical Disc /METHOD=SSTYPE(3) /CRITERIA=ALPHA(.05) /PRINT=DESCRIPTIVE ETASQ OPOWER Parameter /WSDESIGN=PrePost /DESIGN=Group Year Age Gender Religious CSRExperience Group\*Age /EMMEANS=TABLES(Group\*PrePost) COMPARE(Group) ADJ(BONFERRONI) /EMMEANS=TABLES(Group\*Age\*PrePost) COMPARE(Group) ADJ(BONFERRONI) /EMMEANS=TABLES(Group\*Age\*PrePost) COMPARE(Age) ADJ(BONFERRONI)

/EMMEANS=TABLES(Group\*Age\*PrePost) COMPARE(PrePost) ADJ(BONFERRONI).

# Extended base model \* 1 interaction of Personal Attribute at a time.1 interaction at a time.

GLM PreEcon PostEcon PreLegal PostLegal PreEthical PostEthical PreDisc PostDisc BY Group Year Age Gender Religious CSRExperience

/WSFACTOR=PrePost 2 Polynomial

/WSFACTOR=PrePost 2 Polynomial

/MEASURE=Econ Legal Ethical Disc

/METHOD=SSTYPE(3)

/CRITERIA=ALPHA(.05)

/PRINT=DESCRIPTIVE ETASQ OPOWER Parameter

/WSDESIGN=PrePost

/DESIGN=Group Year Age Gender Religious CSRExperience Group\*Gender

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/EMMEANS=TABLES(Group\*Gender\*PrePost) COMPARE(Group) ADJ(BONFERRONI)



/EMMEANS=TABLES(Group\*Gender\*PrePost) COMPARE(Gender) ADJ(BONFERRONI)

/EMMEANS=TABLES(Group\*Gender\*PrePost) COMPARE(PrePost) ADJ(BONFERRONI).

# Extended base model \* 1 interaction of Personal Attribute at a time.1 interaction at a time.

GLM PreEcon PostEcon PreLegal PostLegal PreEthical PostEthical PreDisc PostDisc BY Group Year Age Gender Religious CSRExperience

/WSFACTOR=PrePost 2 Polynomial

/MEASURE=Econ Legal Ethical Disc

/METHOD=SSTYPE(3)

/CRITERIA=ALPHA(.05)

/PRINT=DESCRIPTIVE ETASQ OPOWER Parameter

/WSDESIGN=PrePost

/DESIGN=Group Year Age Gender Religious CSRExperience Group\*Religious

/EMMEANS=TABLES(Group\*PrePost) COMPARE(Group) ADJ(BONFERRONI)

/EMMEANS=TABLES(Group\*Religious\*PrePost) COMPARE(Group) ADJ(BONFERRONI)

/EMMEANS=TABLES(Group\*Religious\*PrePost) COMPARE(Religious) ADJ(BONFERRONI)

/EMMEANS=TABLES(Group\*Religious\*PrePost) COMPARE(PrePost) ADJ(BONFERRONI).

# Extended base model \* 1 interaction of Personal Attribute at a time.1 interaction at a time.\*

GLM PreEcon PostEcon PreLegal PostLegal PreEthical PostEthical PreDisc PostDisc BY Group Year Age Gender Religious CSRExperience

/WSFACTOR=PrePost 2 Polynomial

/MEASURE=Econ Legal Ethical Disc

/METHOD=SSTYPE(3)

/CRITERIA=ALPHA(.05)

/PRINT=DESCRIPTIVE ETASQ OPOWER Parameter

/WSDESIGN=PrePost



/DESIGN=Group Year Age Gender Religious CSRExperience Group\*CSRExperience /EMMEANS=TABLES(Group\*PrePost) COMPARE(Group) ADJ(BONFERRONI) /EMMEANS=TABLES(Group\*CSRExperience\*PrePost) COMPARE(Group) ADJ(BONFERRONI) /EMMEANS=TABLES(Group\*CSRExperience\*PrePost) COMPARE(CSRExperience) ADJ(BONFERRONI) /EMMEANS=TABLES(Group\*CSRExperience\*PrePost) COMPARE(PrePost) ADJ(BONFERRONI).

# \* base model outliers

GLM PreEcon PostEcon PreLegal PostLegal PreEthical PostEthical PreDisc PostDisc BY Group Year Age Gender Religious CSRExperience

/WSFACTOR=PrePost 2 Polynomial /MEASURE=Econ Legal Ethical Disc /METHOD=SSTYPE(3) /CRITERIA=ALPHA(.05) /PRINT=DESCRIPTIVE ETASQ OPOWER Parameter /WSDESIGN=PrePost /EMMEANS =TABLES(Group\*Prepost) COMPARE(Group) ADJ(BONFERRONI) /EMMEANS=TABLES(Group\*PrePost) COMPARE(PrePost) ADJ(BONFERRONI) /DESIGN=Group Year Age Gender Religious CSRExperience

/SAVE COOK ZRESID SRESID.



# Appendix G Email communication with Prof. Y.C. Cheng

From: CHENG, Yin Cheong [mailto:yccheng@ied.edu.hk]Sent: Monday, June 13, 2016 2:37 PMTo: Daphne Wong [HKCC]Subject: RE: Asking for permission

Dear Daphne,

The details of life cycle and policy can be found from my below publication:

Cheng, Y.C. (2005). *New paradigm for re-engineering education: Globalization, localization and individualization.* Dordrecht, The Netherlands: Springer. (22 Chapter 6).

The concepts of 1<sup>st</sup> order and 2<sup>nd</sup> order are mainly given by me to facilitate audiences or graduate students' understanding of the complexity of policy research during the research seminar. You would cite the seminar as the source when necessary.

Hope, this information is helpful. YC

Prof CHENG, Yin Cheong (EdD, Harvard) Research Chair Professor, EPL, The Education University of Hong Kong Past-President, World Education Research Association (WERA) Chairman, Advisory Council, Tin Ka Ping Foundation

Email: yccheng@ied.edu.hk

Personal home-page: http://home.ied.edu.hk/~yccheng/ Tel: (852) 2948-7723

From: Daphne Wong [HKCC] [mailto:ccdaphne@hkcc-polyu.edu.hk]
Sent: 2016年6月8日2:04 PM
To: CHENG, Yin Cheong <yccheng@ied.edu.hk>
Subject: Asking for permission

Professor Cheng,

I had attended your seminar back in April 2011 (attachment one) and found the content most insightful and useful.

I am currently at the final stage in writing up my thesis. I am writing this email requesting your kind permission for me to use in my writing, two frameworks that I had found in your lecture notes (attachment 2) :

- 1. Life cycle & Policy & 1<sup>st</sup> order research
- 2. Life cycle & Policy and 2<sup>nd</sup> order research



Besides, I have searched through quite a number of your related writings aiming to identify the source of these two frameworks but regrettably of no avail. Hence, I wonder if they were being compiled solely for the purpose of your seminar or not.

Your kind consent to my request and enlightenment as to the source of these frameworks is very much appreciated.

Yours sincerely,

Daphne Wong

