DEVELOPMENT OF A MULTI-FACTOR SOCIAL DESIRABILITY BIAS SCALE

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By

TAN HOUNG CHIEN

Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia, in Fulfilment of the Requirements for the Degree of Doctor of Philosophy

April 2019

DEDICATION

This thesis is dedicated to my mother and father, my fiancée and beloved friends

For their trust and support of love

DEVELOPMENT OF A MULTI-FACTOR SOCIAL DESIRABILITY BIAS SCALE

By

TAN HOUNG CHIEN

April 2019

Chair   : Associate Professor Ho Jo Ann, PhD
Faculty   : Economics and Management

Social desirability bias is one of the most common and critical survey distortions that may misleading the research findings and conclusion. Despite 60 years of research, there is still an open debate on its conceptualization and operationalization. Hence, the purpose of this study was to develop and validate a multi-dimensions scale namely, Multi-Factors Social Desirability Bias (MFSDB) scale that can be used to measure the degree of social desirability bias present in a survey. This study adopted DeVellis (2016)'s scale development guidelines and employed a mixed methodology to gather and analyses the data.

In the first phase, qualitative inquiry was carried out to collection respondents' descriptions about social desirability bias through personal interview. In particular, a total of 15 participants were interviewed to identify any potential dimensions for the construct. Six dimensions were identified in the interviews which were the Hubris State, Impression Management State, Secrecy State, Trust State, Adequacy State and Utilitarian State. The initial items pool was then generated according to the six dimensions based on the findings of the interviews and literature.

In the second phase, quantitative inquiry was carried out to examine the reliability and validity of the items derived from the qualitative inquiry. The initial items pool of the MFSDB scale consisted of 100 items were tested against 688 working adults around Malaysia. The dimensions of the new measurement scale were identified through the exploratory and confirmatory factor analysis. Only 17-items grouped under six dimensions fulfilled all the criteria to form the MFSDB scale. The scale has good psychometric properties, consistently demonstrating construct validity in various tests of discriminance and convergence. Its predictability has also been demonstrated in a nomological framework with related constructs. And it meets the requirements of face validity.

The MFSDB scale suggests a new composition of social desirability bias. This scale provides a more accurate measurement for researchers to identify social desirability bias.

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

MEMBANGUNKAN SKALA PENGUKURAN UNTUK KECENDERUNGAN KEINGINAN SOSIAL

Oleh

TAN HOUNG CHIEN

April 2019

Pengerusi : **Profesor Madya Ho Jo Ann, PhD**
Fakulti : **Ekonomi dan Pengurusan**

Kecenderungan Keinginan Sosial adalah salah satu kekeliruan yang paling biasa dan kritikal yang mungkin menyeleweng penemuan dan kesimpulan penyelidikan. Walaupun telah 60 tahun melakukan penyelidikan mengenainya, masih terdapat perdebatan mengenai konsep dan operasinya. Oleh itu, tujuan kajian ini adalah untuk membina dan mengesahkan skala multi-dimensi iaitu Skala Pelbagai Faktor Kecenderungan Keinginan Sosial yang boleh digunakan untuk mengukur tahap kecenderungan keinginan sosial yang wujud di dalam kajian soal selidik. Kajian in menggunakan garis panduan pembangunan skala DeVellis (2016) dan menggunakan kaedah campuran untuk mengumpul dan menganalisis data.

Dalam fasa yang pertama, kajian kualitatif telah dilakukan untuk mengumpulkan keterangan peserta mengenai kecenderungan keinginan sosial melalui kaedah temu bual secara peribadi. Secara khususnya, sejumlah 15 peserta telah ditemu bual untuk mengenal pasti sebarang dimensi yang berpotensi untuk dijadikan konstrak. Enam dimensi telah dikenal pasti di dalam temu bual-temu bual tersebut iaitu keadaan kebanggaan yang berlebihan, keadaan pengurusan tanggapan, keadaan kerahsiaan, keadaan kepercayaan, keadaan keperluan dan keadaan kebergunaan. Semua item permulaan dihasilkan berdasarkan enam dimensi yang dikenal pasti di dalam hasil temu bual dan kajian-kajian terdahulu.

Dalam fasa yang kedua, kajian kuantitatif dijalankan untuk mengkaji kebolehpercayaan dan kesahihan item yang diperolehi daripada kajian kualitatif. Kesemua item permulaan Skala Pelbagai Faktor Kecenderungan Keinginan Sosial yang terdiri daripada 100 item telah diuji ke atas 688 orang dewasa yang bekerja di Malaysia. Dimensi skala pengukuran baru dikenal pasti melalui analisis faktor pengujian dan faktor pengesahan. Hanya 17 item yang dikumpulkan di bawah enam dimensi memenuhi semua kriteria untuk membentuk Skala Pelbagai Faktor Kecenderungan Keinginan Sosial. Skala ini mempunyai sifat psikometrik yang baik, menunjukkan kesahihan konstruk yang

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konsisten dalam pelbagai ujian diskriminasi dan konvergensi. Kebolehannya untuk meramal juga telah ditunjukkan dalam kerangka nominal dengan konstruk yang berkaitan. Serta, ia memenuhi keperluan kesahihan ayat. Skala Pelbagai Faktor Kecenderungan Keinginan Sosial menunjukkan komposisi baru kecenderungan keinginan sosial.

Skala ini memberikan skala pengukuran yang lebih tepat untuk pennyelidik mengenalpasti kecenderungan keinginan sosial.

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This thesis was submitted to the Senate of Universiti Putra Malaysia and has been accepted as fulfilment of the requirement for the degree of Doctor of Philosophy. The members of the Supervisory Committee were as follows:

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Declaration by Members of Supervisory Committee

This is to confirm that:
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LIST OF ABBREVIATIONS

ACCA	Association of Chartered Certified Accountants
AEPQR	Abbreviations of Revised Eysenck Personality Questionnaire
AGFI	Adjusted Goodness of Fit Index
AICB	Asian Institute of Chartered Bankers
AS	Adequacy State
AVE	Average Variance Extracted
BIDR	Balanced Inventory of Desirable Responding
BSDS	Brief Social Desirability Scale
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
CGSDS	Charitable Giving Social Desirability Scale
CSDS	Children Social Desirability Scale
CVR	Content Validity Ratio
DF	Degree of Freedom
DOSM	Department of Statistics Malaysia
DSDS	Driver Social Desirability Scale
EFA	Exploratory Factor Analysis
EPQ	Eysenck Personality Questionnaire
ESDS	Edward Social Desirability Scale
EUICS	European Crime and Safety Survey
EXT	Extraversion Trait
GFI	Goodness of Fit Index
HR	Human Resource
HS	Hubris State
IM	Impression Management
IM-I	Internal Impression Management
IM-E	External Impression Management
ISDS	Indigenous Social Desirability Scale
KMO	Kaiser-Meyer-Olkin
MC	Marlowe Crowne
MCSDS	Marlowe Crowne Social Desirability Scale
MFSDB	Multi-Factors Social Desirability Bias
MIROS	Malaysian Institute of Road Safety Research
MMPI	Minnesota Multiphasic Personality Inventory
NBW	Not Whistleblowing
NEU	Neuroticism Trait
ODQ	Other-Deception Questionnaires
PSY	Psychoticism Trait
PUB	Perceived Unethical Behaviours
RC	Rational Choice Theory
RMSEA	Root Mean Square Error of Approximation

SEC	Subjective Expected Utility
SEM	Structural Equation Model
SCI	Science Citation Index
SD	Self-Deception
SDB	Social Desirability Bias
SDQ	Self-Deception Questionnaires
SIG	Significant
SMASH	Swiss Multicentre Adolescent Survey on Health
SPSS	Statistical Package for the Social Science Window software
SS	Secrecy State
SSCI	Social Science Citation Index
SSM	Companies Commission of Malaysia
TS	Trust State
UK	United Kingdom
US	Utilitarian State
USA	United States
WSDS	Wiggins Social Desirability Scale

CHAPTER 1

INTRODUCTION

1.1   Introduction

The survey approach plays a pivotal role in research, which has also gained increasing use since this approach offers a cheaper and quicker way to obtain data that can be subjected for statistical analyses from a large population (Tunjic et al., 2013). However, a number of studies (see Hall, 2001; Hager et al., 2003; Bekkers, 2007; Ritchie & Sherlock, 2009) disputed the quality of the obtained survey data based on the basis of bias, such as non-response bias and response bias, especially when the respondents are required to respond to sensitive questions (O'Sullivan, 2008; Mitchell & Jolley, 2012). Respondents demonstrate the propensity to lie or misreport their true feelings when they encounter sensitive questions, such as the number of sexual partners, the amount of their donation, or their sense of ethics, in order to create a positive impression of themselves or to avoid embarrassment, shame, and disapproval in social interactions (Lee et al., 1995; Schaeffer, 2000; Hall, 2001; Paulhus, 2002; Holtgraves, 2004; Tourangeau & Yan, 2007; Paik, 2011). Such tendency to create a favourable image of themselves or to distort the impression they give to others is known as social desirability bias (Nunnally, 1978; Zerbe & Paulhus, 1987). Social psychological studies demonstrated that using the survey approach to measure personality, attitude, or behaviour is likely to produce inaccurate and biased results since certain respondents tend to give socially desirable responses (Nederhof, 1985; Paulhus, 1991; Paulhus & Reid, 1991).

Social desirability bias is defined as "the need for social approval and acceptance and the belief that it can be attained by means of culturally acceptable and appropriate behaviours" (Crowne & Marlowe, 1960, p. 109). It is one of the most common and important forms of response bias due to its influence on the quality of empirical results, resulting in misleading findings (Campbell & Fiske, 1959; Nederhof, 1985; Kemery & Dunlap, 1986; Bardwell & Dimsdale, 2001). People tend to give socially desirable responses, rather than responses that are reflective of their true feelings (Grimm, 2010), resulting in under-reporting of social disapproval (undesirable) behaviours (e.g., alcohol abuse, drug abuse, over speeding, or pornography) and over-reporting of social approval (desirable) behaviours (e.g., donation to charity, voting in election, or respect the elderly) (Randall & Fernandes, 1991; Bardwell & Dimsdale, 2001; Chung & Monroe, 2003). More than 1,000 prior studies that were obtained from the ProQuest database between 2011 and 2017 either acknowledged social desirability bias as a research limitation or highlighted the possibility of social desirability bias in the study. In view of the above, this study postulated the need to address social desirability bias, especially in survey research.

1.2   Background of Study

Self-reported measure is often opted in survey research to solicit sensitive information, which explains why most surveys are likely to include sensitive questions. For example, the Swiss Multicentre Adolescent Survey on Health (SMASH) is a national survey where youths are required to provide information on their use of illicit drugs, alcohol drinking, and smoking habit; the European Crime and Safety Survey (EUICS) or the U.S.A. National Crime Victimization Survey, which are national surveys, that include questions on extremely violent activities that can be rather sensitive especially for the victims (Krumpal, 2013). Even in Malaysia, there are national surveys that include sensitive questions, such as the Malaysian Institute of Road Safety Research (MIROS) on how frequently the driver goes over the speed limit on the expressway or the national survey by the Department of Statistics Malaysia (DOSM) on the individual working performance and monthly income. Meanwhile, there are also academic surveys that presented sensitive questions, such as the Family Expenditure Survey (adopted in most marketing studies) on individual household income (Lee et al., 1995), the Ethics Position Survey on moral thoughts at the individual level (Lee et al., 2011), the Employee Satisfaction Survey on the satisfaction of employees in an organisation, or the Feedback Orientation Survey on individual accountability (Linderbaum & Levy, 2010).

There are three types of sensitive questions, which are (1) personally intrusive questions, (2) questions that may lead to threat of disclosure or sanctions by the third parties, and (3) questions that violate social norms (Tourangeau & Yan, 2007). Any of these types of questions are likely to receive biased response since people are inclined to present a favourable impression of themselves or to avoid embarrassment, shame, or disapproval of others. Hence, the obtained survey responses may not reflect what the respondents truly believe, but according to what the researcher may favourably perceive, resulting in misreporting of results (Hall, 2001; Paulhus, 2002; Holtgraves, 2004; Tourangeau & Yan, 2007; Bullock et al., 2011).

Besides that, survey questions on taboo topics, such as racial attitude (Kuklinski et al., 1997; Berinsky, 1999), sexual behaviour (Tourangeau & Smith, 1996), drug abuse (Krumpal, 2013), religious affiliation (Kane et al., 2004), and voter turnout (Silver et al., 1986), often result in inaccurate survey estimates due to social desirability bias (Krumpal, 2013) where respondents tend to over-report socially desirable behaviours and under-report socially undesirable behaviours (Paulhus, 2002). For example, Biering et al. (2006) demonstrated the influence of social desirability bias on the patients' satisfaction scores where patients tend to over-report their actual satisfaction scores to present favourable and acceptable responses as they fear of receiving unfavourable treatment. Such findings were also found in other studies (see Ley, 1972; Hays & Ware, 1986; Sitzia & Wood, 1997).

Accordingly, the actual data (e.g., medical record or urine test) or observed data were compared to the data that were obtained using self-reported measures in several studies to demonstrate the possibility of social desirability bias in self-report studies. For example, Adams et al. (2005) found that the actual (observed) data of physical activity energy expenditure test and the pre-survey data were significantly different where the respondents were found to overestimate their physical activity energy expenditure in the

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survey. Similarly, Brenner & DeLamater (2014) found that the online survey data and text messaging data were significantly different based on a reverse record check on physical exercise with the indication of over-reporting. In addition, the study by Vernon et al. (2012), which assessed cancer screening behaviour, also found that the self-reported data on medical reports were often over-reported and revealed that the scores of social desirability bias were lower for cases that involved (1) Whites (compared to African Americans), (2) college graduates, (3) patients on reporting no prior screening tests, and (4) mail survey and face-to-face survey (compared to telephone survey). These studies clearly demonstrated the existence of social desirability bias where self-reported data and actual data were revealed to be significantly different; thus, affecting the accuracy of the obtained results and findings.

The development of different scales to address social desirability bias started back in the 1950s (see Edwards, 1953; Crowne & Marlowe, 1960; Paulhaus, 1988). The developed scales are relatively brief and inexpensive, which assist the administration of social desirability bias in survey research. The adoption of these scales in cross-sectional studies further enhances the understanding of social desirability bias. However, the recently available measures tend to suffer from several limitations, such as weak conceptualisation of dimensions, outdated content validity, lack of rigour in the method used to develop the scale, and the lack of internal consistency (see Loo & Thorpe, 2000; Lee & Woodliffe, 2010; Ventimiglia & MacDonald, 2012; Dominguez Espinosa & Van De Vijver, 2014), which are further discussed in Section 1.4.

1.3   Justification for Selecting the Marlowe-Crowne Social Desirability Scale

The Marlowe-Crowne Social Desirability Scale (MCSDS), which is widely used to measure social desirability bias (Lambert et al., 2016), was the underlying basis for the development of the new measurement scale in this study. More than 1,000 studies adopted the MCSDS scale since the development of the scale in 1960 (Beretvas et al., 2002). Similarly, Barger (2002) also discovered that 729 articles, which were published in the indexed journals (in Social Science Citation Index) back in 1990s, referred to the original article on MCSDS. Moreover, the recent review (see Perinelli & Gremigni, 2016) of clinical studies also revealed that the MCSDS was the most favoured social desirability measure compared to other scales—including the current standard measure, the Balanced Inventory of Desirable Responding (BIDR) scale (Paulhus, 1984) that was developed based on more sophisticated multivariate techniques to integrate with the more recent theoretical and empirical knowledge on social desirability bias. Lambert et al. (2016) found that MCSDS demonstrated higher efficacy in measuring faking compared to BIDR scale. Surprisingly, although MCSDS was developed 20 years, before the development of BIDR scale, the former still outperforms the BIDR scale and other social desirability bias measures; thus, it remains widely used.

Accordingly, this study specifically involved studies from 2011 to 2017 in the ProQuest database for the review of literature on social desirability bias. Firstly, the keyword "social desirability" in the title, abstract, content, and keyword was used. Secondly, in order to improve the reliability of the literature review, only journals that were indexed in the Science Citation Index (SCI) and Social Science Citation Index (SSCI) were reviewed. As a result, the search yielded a total of 2,162 potential articles from 42

journals (see Table 1.1 for the list of selected journals), of which only 164 articles included a scale to measure social desirability bias. This study then proceeded to identify the types of scales used in these prior studies to measure social desirability bias. As shown in Table 1.2, the MCSDS (the full and shortened versions) was ranked first, which was followed by BIDR and the over-claiming scale.

Table 1.1: List of selected journals

Journal	Impact Factor Year 2017
Journal of the Academy of Marketing Science	8.488
Journal of International Business Studies	6.198
Journal of Supply Chain Management	6.105
American Journal of Public Health	4.380
Journal of Autism and Developmental Disorders	3.476
Journal of Abnormal Child Psychology	3.287
Journal of Youth and Adolescence	3.247
Annals of Behavioral Medicine	3.118
Journal of Business Ethics	2.917
European Journal of Information Systems	2.819
International Marketing Review	2.600
Journal of Business and Psychology	2.576
Archives of Women's Mental Health	2.565
Journal of Knowledge Management	2.551
Journal of Services Marketing	2.408
Quality of Life Research	2.392
Journal of Happiness Studies	1.986
Political Behaviour	1.877
Motivation and Emotion	1.837
Career Development International	1.725
Social Indicators Research	1.648
Journal of Child and Family Studies	1.588
Journal of Computer Information Systems	1.557
Journal of Managerial Psychology	1.547
Journal of Community Health	1.530
Management Decision	1.525
Cross Cultural & Strategic Management	1.516
European Journal of Marketing	1.497
Personnel Review	1.395
British Food Journal	1.289
Journal of Immigrant and Minority Health	1.284
Social Psychology of Education	1.261
Child & Youth Care Forum	1.224
Journal of Biosocial Science	1.217
Journal of Nursing Education	1.185
Community Mental Health Journal	1.159
Quality and Quantity	1.072
Leadership & Organization Development Journal	1.067
Canadian Journal on Aging	0.771

Table 1.2: Types of scales used to measure social desirability bias

No.	Type of scales	Number of articles
1.	Full and shortened version of Marlowe-Crowne Social Desirability Scale (MCSDS)	108
2.	Full and shortened version of Balanced Inventory of Desirable Responding (BIDR) scale	21
3.	Over-claiming scale	4
4.	Revised Children's Manifest Anxiety Scale	3
5.	Others (e.g., Social Anxiety Scale, Agreeableness Scale, or lie scales)	24
6.	Not mentioned	4

1.4 Problem Statement

Despite being widely used, the MCSDS receives several criticisms, which are discussed in this section. Firstly, the social desirability bias dimensions in the MCSDS were disputed to be weakly conceptualised (see Ballard, 1992; Loo & Thorpe, 2000; Leite & Beretvas, 2005; Lee & Woodliffe, 2010). The originally developed MCSDS comprised only one-dimensional (to be specifically, there was no specific dimension stated during the development) structure, but prior studies (see Wiggins, 1964; Jacobson et al., 1977; Ramanaiah et al., 1977; Loo & Thorpe, 2000) found that the MCSDS included several social desirability bias dimensions based on the results of factor analysis. For instance, Wiggins (1964) and Ramanaiah et al. (1977) indicated that the MCSDS included two social desirability bias dimensions, which were identified as Alpha and Gamma (Wiggins, 1964) or attribution and denial (Ramanaiah et al., 1977). However, in another study, Jacobson et al. (1977) argued that the MCSDS included four social desirability bias dimensions instead, namely (1) attribution of positive traits, (2) attribution of negative traits, (3) denial of positive traits, and (4) denial of negative traits. The analysis of goodness-of-fit for MCSDS revealed that the structure of the scale fitted well into one-factor model and two-factor model, which implies that MCSDS can be of either unidimensional or bi-dimensional nature (Ventimiglia & MacDonald, 2012).

This has propelled a debate on the dimensional structure of social desirability bias. Adding to that, different studies have defined different social desirability bias dimensions. For example, Edwards (1957) and Crowne & Marlowe (1960) defined social desirability bias as a unidimensional construct (which only consisted of one dimension; i.e., the need for approval), while Ramanaiah et al. (1977) and Paulhus (2002) defined social desirability bias as a bi-dimensional construct. Those dimensions were either identified as "attribution of positive traits" and "denial of negative traits" (Ramanaiah et al., 1977) or "self-deception" and "impression management" (Paulhus, 2002). Besides that, social desirability bias was also viewed as a multi-dimensional construct, which included "self-deception", "impression management", "level of involvement", "perceived benefits", and "social norms" (Lee & Woodliffe, 2010). Meanwhile, Jacobson et al. (1977) specifically indicated that social desirability bias comprised of four dimensions: (1) "attribution of positive traits", (2) "denial of positive traits", (3) "attribution of negative traits", and (4) "denial of negative traits". As a result, the

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MCSDS which was originally conceptualised as a single dimension by Marlowe and Crowne (1960) was argued in this study as insufficient and perhaps inaccurate. Addressing that, this study applied the interview approach to explore potential dimensions and to develop a scale which may better represent and measure social desirability bias.

Secondly, the content validity of MCSDS has also been questioned (Loo & Thorpe, 2000). Several studies (see Schultz, 1969; Stober, 1999; Snyder et al., 2000) highlighted that the items of the MCSDS were outdated. In particular, Stober (1999) specified that items of the MCSDS such as "I am always courteous, even to people who are disagreeable", "There have been times when I felt like rebelling against people in authority even though I knew they were right", and "At times I have really insisted on having things my own way," reflected the social standards of the late 1950s, which may not hold true today. In short, the items of the MCSDS are unable to reflect the current social standards.

Thirdly, the MCSDS was developed based on the existing personality inventories and scales (e.g., MMPI, MMPI-2, and Taylor Manifest Anxiety Scale), which overlooked the possibility of other potential items and dimensions since the MCSDS exclusively focused on the personality scales. Likewise, Millham & Kellogg (1980) also argued that the MCSDS did not measure social desirability bias, but more of a measure of "avoidance" instead, which was also highlighted in other studies (see Jacobson et al., 1970; Millham, 1974; Jacobson et al., 1977). In particular, people who scored high in the MCSDS were believed to be those who cheated to avoid negative evaluation, which clearly did not reflect social desirability bias. For example, one of the items of the MCSDS was as follows: "I always practice what I preach"; it was said that those who answered "yes" may be aware that they did not always practice what they preached, but they were not willing to admit and eventually, resorted to cheating in order to avoid negative evaluation (Millham & Kellogg, 1980). This might be the MCSDS was initially developed to identify fakers in personality scales, hence only personality scales' items were included. Therefore, this study used the existing psychometric scales and interview data rather than just personality scales, to generate a broader item pool. In addition, this study also adopted DeVellis's eight steps of scale development model (DeVellis, 1991; 2003; 2012; 2016) to ensure that the newly developed social desirability bias scale measured what it was intended to measure.

Last but not least, although the internal consistency of the MCSDS was proved adequate (Beretvas et al., 2002; Crowne & Marlowe, 1960), the validity of the scale was tested using a sample of students, which limited the generalisation of the results (Dominguez Espinosa & Van De Vijver, 2014). However, Crowne & Marlowe (1960) explained that they depended on student samples to test the validity of the MCSDS because students were said to be less likely to give fake responses. However, several studies (see Bronfenbrenner, 1992; Juvonen & Weiner, 1993; Pansu et al., 2008) highlighted that students may attempt to present a favourable impression of themselves to gain the approval and acceptance from their teachers and peers or to avoid rejection. Furthermore, a study by Hanel and Vione (2016) compared the personality and attitude of students and the general population across 53 countries, which revealed that students' views were different from the views of the general population within the countries or between

countries. The study also concluded that the generalisation of the results based on student samples across the general population can be problematic, especially for studies on personality and attitude. Similarly, Belot et al. (2015) also highlighted the difference in social preference and ability to strategically reason between students and non-students since students, compared to non-students, are more likely to experience selfishness and rational behaviours. Considering that, the development of the MCSDS where "the judges were instructed to score each item in the socially desirable direction from the point of view of college students" (Crowne & Marlowe, 1964, p. 22) suggests that the generalisation of results from the perspectives of students across the general population can be affected. Therefore, this study develops a scale from the perspectives of the general population and subsequently tested the developed scale on the general population, instead of relying on student samples.

1.5   Research Questions

This study addressed the following research questions with respect to the identified gaps in the prior section:

i)   What are the social desirability bias dimensions?
ii) What are the differences between the existing social desirability bias scales and the newly developed social desirability bias scale in this study?
iii) Does the newly developed social desirability bias scale fulfil the reliability and validity criteria as established by published literature on scale development process?

1.6   Research Objectives

Overall, this study aimed to construct a new generic scale to assess social desirability bias. The specific objectives of this study are as follows:

1)   To identify the dimensions of social desirability bias based on literature review and interview;
2)   To develop the social desirability bias scale using inductive and deductive approaches;
3)   To develop, validate, and assess the reliability of the newly developed social desirability bias scale using questionnaires.

1.7   Significance of Study

The theoretical significance and managerial significance of this study based in Malaysia are discussed in the following subsections.

1.7.1   Theoretical Significance

From the theoretical perspective, the identification and validation of social desirability bias dimensions in this study extends the existing knowledge base on social desirability bias. Several prior studies (see Jacobson et al., 1977; Loo & Loewen, 2004; Tatman et

al., 2009) highlighted social desirability bias as a multi-dimensional construct, but most studies often applied social desirability bias as a bi-dimensional construct according to the definition of Paulhus (1984), specifically "self-deception" and "impression management". Accordingly, most of the recent social desirability bias scales were of either bi-dimensional (e.g., BIDR) or unidimensional nature (e.g., ESDS, WSDS, MCSDS, and ISDS). The proposition that social desirability bias scales were multidimensional was further supported when Lee & Woodliffe (2010) identified five social desirability bias dimensions, specifically "self-deception", "impression management", "level of involvement", "perceived benefits", and "social norms", within the context of charitable giving. Subsequently, Lee & Sargeant (2011) developed a social desirability bias scale based on these five identified dimensions, in the context of charity giving. Although the studies mentioned above were specifically conducted within the context of charity giving, they also highlighted the possibility of other social desirability bias dimensions (apart from "self-deception" and "impression management") that have not been explored within a general context. Therefore, this study contributes essential insights on possible dimensions of social desirability bias that are applicable within a general context.

In addition, this study also developed a more parsimonious social desirability bias scale using a theoretically established procedure of scale development model. The MCSDS received several criticisms, especially on its weak conceptualisation and inconsistency of dimensions (Loo & Thorpe, 2000; Dominguez Espinosa & Van De Vijver, 2014), since different studies had different standards in terms of the number of social desirability bias dimensions in the MCSDS. For instance, Wiggins (1959) and Ramanaiah et al. (1977) argued that the MCSDS involved two social desirability bias dimensions, while Jacobson et al. (1977) viewed social desirability bias as a multi-dimensional construct. Moreover, Ventimiglia & MacDonald (2012) also concurred that the MCSDS was poorly conceptualised because the structure of MCSDS was found to fit in the both one-factor model and two-factor model. Moreover, a review study by Beretvas et al. (2002) also found that the internal consistency of MCSDS was below the acceptable value of 0.70. Furthermore, the MCSDS was also said to measure the motive of avoidance, rather than social desirability bias (Jacobson et al., 1970; Jacobson et al., 1977; Millham & Kellogg, 1980), which was attributed to the inadequacy of the method used to develop MCSDS by Crowne & Marlowe (1960; 1964) and the lack of rigorous statistical analyses in ensuring the robustness of the developed scale (e.g., exploratory factor analysis and confirmatory factor analysis) back then, as they only tested the reliability and internal consistency of the developed scale.

In addition, the MCSDS was developed based on a Western context (Crowne & Marlowe, 1960; Paulhus, 1984). A number of studies (e.g., Kurz, Drescher, Chin, & Johnson, 2016; Miller et al., 2000; Ross & Mirowsky, 1984) which have examined the relationship between social desirability bias and cultures, or languages found social desirability bias significantly correlate with cultures or languages. As a result, the content of the MCSDS may be biased toward the Western culture and has failed to address non-Western culture (Dominguez Espinosa & Van De Vijver, 2014; Dudley, McFarland, Goodman, Hunt, & Sydell, 2005; Hough, 1998; Thompson & Phua, 2005).

In addition, the MCSDS was only validated using student samples (Dominguez Espinosa & Van De Vijver, 2014), which exclusively considered the perspectives of students (Crowne & Marlowe, 1964). However, several studies (see Belot et al., 2015; Hanel & Vione, 2016) demonstrated that using student samples and non-student samples produced different results in terms of social preference, attitude, and behaviour; thus, the results may not be generalised across the general population. Hence, in this study, the new developed scale will be tested using the sample of Malaysian working adults, rather than student samples, in order to develop a more parsimonious social desirability bias scale.

1.7.2 Managerial Significance

This study also provides three essential insights for practitioners, such as academicians, human resource (HR) managers, and government agencies, to improve the quality of data. Firstly, this study is expected to facilitate future research in assessing the quality of self-reported data since self-reported data has been criticised to be unreliable due to social desirability bias (Bekkers, 2007; Ritchie & Sherlock, 2009). Krumpal (2013) also highlighted that respondents are inclined to provide socially desirable responses, rather than reporting based on their true feelings, when they are required to answer sensitive questions or questions on taboo topics. The use of unreliable data in studies influences the quality of empirical results, resulting in misleading findings (Campbell & Fiske, 1959; Kemery & Dunlap, 1986; Podsakoff et al., 2003). Moreover, the newly developed social desirability bias scale also serves as a validation tool for other new developed scales by gauging their efficacy via testing the other new developed scales against the social desirability bias scale for the removal of biased items (DeVellis, 2003; Hinkin, 1995; Nederhof, 1985; Podsakoff et al., 2003). Thus, the newly developed social desirability bias scale in this study is expected to assist in the identification and removal of data that may be influenced by social desirability bias.

Secondly, this study is deemed significant among human resource (HR) managers in their attempts to accurately identify intellectual achievements of potential job candidates, considering that most job applicants may provide false or socially desirable responses, which are also known as "fake good" or "fake bad", during their job interviews. Such cases are rather common, and the effects can be substantial (Holden & Book, 2012). Various studies (see Alliger & Dwight, 2000; Donovan et al., 2003; Birkeland et al., 2006; Griffith et al., 2007; Arthur et al., 2010) have revealed a high likelihood of providing socially desirable responses during job interviews among job applicants. Hence, it is important to identify and eliminate those who attempt to give socially desirable responses during these interviews (Rosse et al., 1998), especially for job positions that require high integrity, such as the position of anti-corruption officers, police officers, or teachers (Alliger & Dwight, 2000). For such job positions, social desirability bias may be detrimental to the employees' work performance (Komar et al., 2008). On a similar note, Rosse et al. (1999), Hakstian & Ng (2005), and Donovan et al. (2005) revealed that individuals who are identified as fakers or give socially desirable answers often demonstrate poorer performance at the workplace. Therefore, hiring the "right" candidates is important to an organisation as it would able to maximize the productivity and minimize costs for the organisation.

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Apart from that, social desirability bias is not only found in job interviews, but also in the job performance appraisals (Wayne & Liden, 1995), organisational commitment surveys (Bernardi et al., 2011), employees' satisfaction surveys (Schermer & MacDougall, 2013), and physical tests (Adams et al., 2005), which are usually conducted by the HR department. Therefore, social desirability bias may mislead the findings and subsequently, affect the decision-making process of the HR managers. Addressing that, this newly developed social desirability bias scale in this study aims to assist HR managers to efficiently identify suitable candidates during the recruitment process and to obtain more accurate information for a better decision-making process on key organisational issues, such as training and development as well as promotion.

Last but not least, this study also offers significant assistance to government agencies when it comes to the implementation of national studies, policy making, and decision making. National surveys, such as the Swiss Multicentre Adolescent Survey (SMASH) [conducted by the Federal office for Public Health of Switzerland], the European Crime and Safety Survey (EUICS) [conducted by the European Commission], the U.S.A. National Crime Victimization Survey [conducted by the Bureau of Justice Statistics of United States], and the Road Safety Survey [conducted by the Malaysian Institute of Road Safety Research (MIROS)] are important develop new policies for national well-being. For examples, through MIROS, the Malaysian government gain a better understanding of the characteristics of Malaysian drivers on the highway where such data may be used to prevent road accidents, while the U.S. Chamber of Commerce, and the Bureau of Labor Statistics (BLS) conducted a survey regarding employees' benefits to better understand the needs and wants of employees where such data may be used to create a better working environment. It is inevitable that such surveys solicit sensitive information where respondents tend to respond in a socially desirable manner, rather than providing answers that reflect their true feelings (Krumpal, 2013).

Similarly, one of the most common national surveys, the voter turnout survey, is often argued to produce inflated results (Belli et al., 1999; see also Clausen, 1968; Presser et al., 1990; Abelson et al., 1992) where the obtained results have revealed that the number of voter turnout in such national surveys were often higher than the official record of the voter turnout for the election. This was attributed to the undesirable behaviour of "not voting in an election"; therefore, the respondents were inclined to claim that they had voted or will vote even though they did not or do not intend to (Swaddle & Heath, 1989; Presser, 1990; Granberg & Holmberg, 1991; Karp & Banducci, 1999). Therefore, this newly developed social desirability bias scale is expected to facilitate national surveys to obtain more precise data for the effective and efficient implementation of national policies.

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1.8   Thesis Organisation

This thesis consists of five chapters, which are organised as follows:

Chapter 1 (Introduction) – This chapter provided a brief introduction on social desirability bias. Following that, the chapter discussed the background of study and the justification for selecting the Marlowe-Crowne Social Desirability Scale (MCSDS). The chapter subsequently described the problem statement, research questions, objectives of study, and the significance of study.

Chapter 2 (Literature Review) – Overall, this chapter describes social desirability bias in detail and reviews the relevant previous studies on social desirability bias. Firstly, the chapter defines the term "social desirability bias" and its dimensions. Following that, the chapter describes the established social desirability bias scales. Besides that, this chapter also discusses the relationship between culture and social desirability bias as well as the influence of individual-based factors (such as age, gender, and education level) on social desirability bias. This chapter also discusses the influence of different survey modes on social desirability bias. Additionally, this chapter also discusses the weaknesses and gaps of existing social desirability bias scales.

Chapter 3 (Methodology) – This chapter describes DeVellis's eight steps of scale development model (DeVellis, 2003; 2012; 2016) for the development of new social desirability bias scale in this study. In particular, these eight steps are as follows: (1) determine the measured variables; (2) generate item pool; (3) determine the format of measurement scale; (4) invite experts to review the initial item pool; (5) consider the inclusion of validation items; (6) administer items to a development sample; (7) evaluate the items; (8) optimise the scale length. This chapter also describes the overall research design, the adopted sampling strategies, and considered data analyses in this study.

Chapter 4 (Results and Discussion) – This chapter describes the results of data analyses, including the results of descriptive statistics, t-tests, ANOVA, correlation analysis, exploratory factor analysis (EFA), confirmatory factor analysis (CFA), and structural equation modelling (SEM). This chapter also presents the interpretation and discussion of the obtained results.

Chapter 5 (Conclusion) – This chapter presents an overview of the development of the new social desirability bias scale in this study. The theoretical and practical implications of the newly developed social desirability bias scale are also discussed in this chapter. Additionally, this chapter describes the limitations of study and recommendations for future research.

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