

Full Length Research Paper

The relationship of ethical climate with intention and socially responsible investment behaviour: A structural equation model analysis

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This study examines the impact of organizational ethical climate on perceived socially responsible investment (SRI) behavior with intention to engage in SRI as a mediating variable. This study uses questionnaire to collect opinion from respondents. Questionnaires were distributed to 320 fund managers of unit trust fund companies but only 84 of them positively responded by returning the filled questionnaires. This led to a response rate of 26.25%. On a scrutiny of the returned questionnaires, it has been found that 73 are fit for further processing or the usable rate of 22.81%. Employing Structural Equation Modeling (SEM) technique, the results showed goodness of fit for the model, indicating the appropriateness of the use of instrument and measurement. The analysis found that caring ethical climate has a significant and positive direct effect on perceived SRI behavior. Besides, a caring ethical climate has a significant and positive indirect effect on perceived SRI behavior with the intention to engage in SRI. The study found a significant direct effect of intention on perceived SRI behavior. However, the study has not found any evidence to support the association of instrumental ethical climate with intention and perceived SRI behavior.

Key words: Organizational ethical climate, intention, socially responsible investment behaviour, unit trust fund managers.

INTRODUCTION

Socially responsible investment (SRI) refers to investment policies that incorporate social, environmental, ethical/governance considerations before placing money in selected companies or funds. Schueth (2003) explains the role of Methodist Church and Religious Society of Friends (Quaker) as the two earliest religious movements that encourage their followers to avoid companies whose business conflicted with their morals such as companies in alcohol, tobacco and gambling activities. Since then, SRI has gained momentum and Schwartz (2003) describes seven factors that have contributed towards

SRI progress which are (i) growing invest concerns over environmental, repressive regimes and product safety issues, (ii) growth of the business ethics and corporate social responsibility movement like academia, media, and special interest groups, (iii) growing evidence that SRI funds produce more attractive or similar returns like conventional funds, (iv) growth of ethical mutual funds advertisement, (v) greater media exposure, (vi) growth of sustainability indices that only include socially responsible companies, and (vii) growth of national social investment organizations.

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In terms of economic performance, empirical studies of Sauer (1997), Guerard (1997) and Diltz (1995) confirm the lack of statistically significant difference between SRI and conventional fund performance in the United States. Kreander et al. (2005) have shown that SRI funds from seven developed markets – Belgium, Germany, Netherlands, Norway, Sweden, Switzerland and the United Kingdom exhibit similar performance pattern to conventional funds. Besides, the United States Social Investment Forum (SIF) in its Report on Socially Responsible Investing Trends (2010) has shown that at the beginning of 2010, the amount of total SRI managed assets was USD 3.07 trillion or a rise of 13% from USD 2.71 trillion in 2007 – the last published Trend Report; or a rise of more than 380% from USD 639 billion in 1995 – the first year the Trend Report was released. This amount is 12.2% of USD 25.2 trillion of total assets under management in the United States as tracked by Thomson Reuters Nelson. The similar report has also revealed that from 2007 – 2010 alone; the SRI assets has increased more than 13% while the broader universe of professionally managed assets increased less than 1%. In addition, the European SRI Study (2010) by European Social Investment Forum (Eurosif) has reported that total SRI assets in Europe have hit EUR 5 trillion at the end of 2009. It was 10% from total assets under management in Europe. Since the last report in 2007, SRI assets in Europe have increased by 85% or rose from EUR 2.7 trillion in 2007. In short, this shows a growth of about 87% over two years or a compound annual growth rate (CAGR) of 37%. Similar report has indicated that the largest SRI market in Europe – the United Kingdom as at the end of December 2009, total SRI assets in the United Kingdom were GBP 938.9 billion or EUD 1.043 trillion – approximately 20% of total European SRI assets.

According to Sustainable and Responsible Investment in Asia (AsRIA) 2003 Report, which was commissioned by the International Financial Corporation (IFC) – the private sector arm of the World Bank Group, the SRI fund in emerging market, in particular Asia has only begun and is yet to fully demonstrate how its approach can contribute to business performance. The report showed that the SRI assets in Asia were only USD 2.2 billion, or 10% from worldwide SRI 2003 figure. Furthermore, USD 1.0 billion of the assets was held by local investors and the remaining was controlled by international individual or institutional investors. Even though no other recent reports were published consequently by AsRIA, the 2003 report has concluded that Asia markets, particularly Malaysia has a great potential to grow and become an important hub of SRI since the similar concept has appeared in the form of Islamic investment since 1968. For a record, according to the 2010 Annual Report of Federation of Malaysia for Investment Managers (FMIM), the total amount of Islamic unit trust fund asset for Malaysia as at end of the year is RM 26.7 billion or USD 8.61 billion (USD 1 = RM 3.10) or 26.83% of total unit

trust fund asset, which is RM 99.13 billion. Herringer et al. (2009) have classified faith based investment such as Islamic investment as a Core SRI fund or the original form of SRI consisting of screening strategies based on religious values.

Besides, Bardai (2001) has suggested that fund managers hold a major key in accelerating the pace of SRI development due to their enormous funds and large pools of expert talents compared to individual investor. Fund managers play significant roles in their investment activities and they are responsible for the investment of the financial assets on behalf of the beneficiaries. They make a decision on the investment strategies – whether to optimize returns in long-term or short-term periods, and decide on the proportion of investment in different financial assets such as equities, debts or money market instruments and even to determine which corporations to be selected for placing the entrusted money. They are also expected to oversee the performance of portfolios through various engagement initiatives like periodic dialogues, regular meetings or negotiations with investee companies' management, board monitoring, and in extreme cases threat of exit, exit the investee companies or begin proxy battles to acquire board control. Furthermore, other researchers like Hellsten and Mallin (2006), McLaren (2004), and Solomon and Solomon (2003a, 2003b, 1999) had made calls for a greater role of fund managers in enhancing companies' commitment to corporate social responsibility through SRI policies. With the wide prevalence of SRI globally, fund managers are also expected to participate actively in SRI. Nevertheless, a question remains: 'What motivates these fund managers' SRI behaviour?'

Multiple studies have been conducted in the area of SRI including on assessing factors motivating investors' SRI behaviour. Hofmann et al. (2004) and Hemingway and Maclagan (2004) have highlighted the personal values, personal interest and attitude of investors towards moral or ethical consideration as motivating factors. Hofmann et al. (2007) have examined the role of moral intensity in influencing SRI intention and behaviour among investors. In a more recent analysis, Hofmann et al. (2008) have evaluated the components of Theory of Planned Behaviour – attitude, subjective norms and perceived control behaviour in motivating investors' SRI intention and behaviour. Besides, Lewis and Mackenzie (2000) have evaluated the relationship of motive to invest in SRI portfolios and the favoured roles of individual SRI investor. In addition, Spencer (2001), Moir (2001) and Martin (1986) have attributed external factors such as urban strife, environmental degradation, unfair labour practice and the need of good governance as motivating factors that encourage investors to engage SRI behaviour. However, what prompts this present study is the lack of examination on the role of organizational ethical climate in motivating SRI intention and behaviour. This is also supported from the recent work of Hoepner

Table 1. The ethical climate topology.

		LOCUS OF ANALYSIS		
		<i>Individual</i>	<i>Local</i>	<i>Cosmopolitan</i>
ETHICAL CRITERION	<i>Egoism</i>		Instrumental	
	<i>Benevolence</i>			Caring
	<i>Principle</i>	Independence	Rules	Law and Codes

Source: Neubaum et al. (2004).

and McMillan (2009) on the top 52 most influential studies in the discipline of SRI, which has found that no assessments have been carried out before to evaluate the impact of organizational ethical climate on investors' responsible investment intention and behaviour

Referring to Denhardt (1988), ethical decision making and behaviour are not being influenced alone by personal factors, but also by organizational factors because organization imposes obligations, pressures and constraints. One of the organizational factors that may influence is organizational ethical climate. According to Victor and Cullen (1988), organizational ethical climate is the prevailing perception of typical organization practices and procedures that have ethical content and an important source of information to employees regarding what actions are right or ethical in a work context. From the perspective of this present study, we believe that organizational ethical climate does have influence on fund managers' SRI intention and behaviour. It is expected that the organizational ethical climate contributes to the way fund managers analyze social, environmental, ethical/governance aspects, make a decision to choose SRI compliance funds and perform certain behaviour to monitor the portfolios. Thus, this present study aims to examine and validate the relationship of organizational ethical climate and SRI intention-behaviour among fund managers.

REVIEW OF LITERATURE AND HYPOTHESIS FORMULATION

In this sub-section, the theoretical concept of organizational ethical climate will be explained, and subsequently followed by analysis of previous studies that have examined the relationship of organizational ethical climate with other constructs. This sub-section will be ended with discussion on present study's hypothesis formulation.

Theoretical development of organizational ethical climate

Victor and Cullen (1988) have developed the concept of organizational ethical climate. It has two dimensions. The first dimension is ethical criteria used in making a decision. It has three elements – egoism, benevolence

and principle. Egoism relates to making a decision that maximizes self-interest. Benevolence means making a decision that maximizes mutual or joint interest, and principle refers to making a decision by complying with deontological (duty and obligation) standards. The second dimension is locus of analysis meaning to the reference groups, which are individuals used in making ethical decision. It also has three elements – individual, local and cosmopolitan. Individual refers to employee's personal norms or the pursuit of self-interest as a reference in ethical decision making. Local indicates primary reference groups are within the organization, for instance officemates, subordinates or team members. Meanwhile, cosmopolitan means reference groups are external to the organization such as professional bodies, enforcement agencies and state laws or regulations. The interaction of these two dimensions has resulted in five organizational ethical climate (*caring, law and code, rules, instrumental and independence*), illustrated in Table 1. According to Wimbush et al. (1997a, 1997b), organizational members in *caring* climate are interested in the well-being of other constituencies and in *law and code* climate, organizational members are expected to comply with profession code and state regulations. Furthermore, organizational members in *rules* climate are expected to comply with rules and procedures of their organization. Then member of *instrumental* climate organizations seeks to maximize their self-interests more than interest of others who may be affected by their decisions. Lastly, in *independence* climate organizations, members are expected to be guided by their personal moral beliefs.

In a subsequent analysis, Victor et al. (1993) evaluated the psychometric properties of the ethical climate questionnaire (ESQ). Based on outcomes of the earlier investigation (1987, 1988), the modified questionnaire had additional 4 items for each of the nine postulated ethical climate dimensions. Thus, in total, the revised ESQ had 36 – 10 items more than the two initial studies. The modified questionnaires were distributed to 12 organizations involving 1167 respondents. The analysis evidenced seven ethical climate dimensions – self-interest, efficiency, friendship/team interest, social responsibility, personal morality, rules, and law and professional codes. These were unlike the results of two earlier investigations, which found nine ethical climate dimensions. The two ethical climate dimensions

unidentified using the modified ECQ were company profit and team interest.

Previous studies on effects of ethical climate on ethical behaviour

Numerous studies have been conducted in the past to evaluate the impact of ethical climate on ethical or unethical behaviour among personnel of organization. Wimbush and Shepard (1994) were among the earliest investigators to postulate the link between ethical climate and ethical behaviour. In subsequent studies, Wimbush et al. (1997a, 1997b) empirically found evidence that ethical climate influences ethical behaviour. Fritzsche (2000) evidenced that law and code climate influenced ethical decision making among a high technology firm's employees. Deshpande et al. (2011) also found a relationship between ethical climate and ethical behaviour of successful managers in Chinese contexts. Rothwell and Baldwin (2007) suggested that benevolent climates have a positive relationship with employee's intention to engage in whistle-blowing. Parboteeah and Kapp (2008) found a positive linkage between principled climates and workplace safety behaviour. Bulutlar and Oz (2009) highlighted a positive linkage between egoistic climates and workplace bullying behaviours and negative linkage between principled climates and workplace bullying behaviour. Smith et al. (2009) found that egoistic climates were related with misreporting practices, principled climates were related with less misreporting practices and benevolent climates were not related with misreporting practices.

Besides, multiple previous studies also have been conducted to examine the influence of ethical climate on organizational personnel's dysfunctional behaviour or defiance behaviour. Barnett and Vaicys (2000) found that salesmen in rules climate organization were less likely to engage in questionable selling practices; ironically, salesmen in friendship climates were more likely to engage in questionable selling practices. Vardi (2001) found negative significant relationship between benevolent climate and misbehaviour among the supervisors and non-supervisors of various units at a metal production factory. Peterson (2002) evidenced that defiance behaviour was higher in organization with egoistic climate than in an organization with benevolent and principled climates. A higher dysfunctional behaviour was also recorded in an organization that did not have a code of ethics. Bulutlar and Oz (2009) discovered that instrumental climates were positively associated with defiance behaviour, while principled and benevolent climates were negatively related with such behaviour.

Studies by Cullen et al. (2003), Martin and Cullen (2006) and VanSandt et al. (2006) have found a consistent theme from their investigation. Benevolent and principled climates – caring, rules, law and code and

independence are ethical climates related with a positive behaviour and conduct; while egoistic climates – instrumental is ethical climates related with negative behaviour and conduct. In organizational context, different types of organizations incline to have a specific ethical climate types. For examples, organizations that are governed by strict code of conduct and professional code of ethics are possibly to have principled climates, organizations that operate in highly competitive markets are likely to have egoistic climates, and organizations that engage with human are likely to have benevolent climates (Simha and Cullen, 2012).

In the context of this current study, investigation on effect of ethical climate on socially responsible investment behaviour in emerging economics like Malaysia is imperative as more investigations are needed to examine the influence of ethical climate in order to enrich the literature of international business (Simha and Cullen, 2012; Kaptein, 2008). Moreover, numerous previous studies have captured the perception of employees on ethical climate, ignoring other groups of stakeholders like institutional investors, that is, fund managers with regard to their citizenship behaviour and how ethical climate might affect their investment behaviour (Mayer et al., 2009).

Hypothesis formulation

The purpose of this study is to determine the relationship between ethical climate dimensions and SRI intention-behaviour. Even though no study has substantially focused on the specific issue, several previous studies do provide some guidance. For example, Buchan (2005) has assessed the role of instrumental ethical climate in influencing ethical decision making intentions among public accountants. The analysis has shown that there is no significant impact of instrumental climate on ethical decision making intentions in all four ethical vignettes of the study – confidentiality, underperforming the audit, lowballing and charging personal expenses to the firm. However, as postulated, instrumental climate indicated negative association with unethical intentions. In a further argument, the author has also agreed that other organizational ethical climate dimensions encourage ethical behaviour, with the exception of instrumental climate. Flannery and May (2000) also found a marginal support for role of instrumental climate in influencing environmental ethical decision making among employees of metal finishing industry in the United States. As expected, instrumental climate showed negative association with intention to improve environmental aspect of the industry. In another earlier analysis, Cullen et al. (2003) found that a benevolent climate like caring increases the commitment among members of organization and an egoistic climate like instrumental decreases the organizational commitment among employees. The

author further argued that principle climate dimensions like rules, law and codes and independence increase the commitment among professional workers but not among non-professional workers. Later, Martin and Cullen (2006) have also supported that instrumental climate increases the likelihood of unethical behaviour and reduces commitment and satisfaction, and the benevolence/principle climate decreases the likelihood of unethical behaviour and increases commitment and satisfaction.

Shafer (2008) examined the impact of ethical climate in Chinese certified public accountants firms on auditing ethical decision making intentions and ethical judgments using three auditing vignettes. The analysis has revealed that none of ethical climate significantly influences overall ethical judgment and moral equity judgment. With regard to behavioral intentions model, the analysis has found that egoistic/local ethical climate, benevolence/cosmopolitan ethical climate and principle/cosmopolitan ethical climate significantly affect auditing ethical decision making intentions. Furthermore, the author argued that egoism/individual and egoism/local are more likely to be associated with questionable or unethical behaviour as those climates emphasize individual self-interest (egoism/individual) and company's interest (egoism/local) more than other climate. This type of ethical climate influences individual members of an organization to make decision which can maximize self-interest such as career promotion or achieving organizational goal like meeting financial target regardless of possible unfavorable consequences to a larger segment of team members or society. In his study among business professionals, Peterson (2002) also concluded that egoistic climate type such as self-interest and company's profit has correlated positively with unethical behaviour. Shafer (2008) has further argued that principle/cosmopolitan climate and benevolence/cosmopolitan climate such as caring, law and code, rules and independence are associated with more ethical behavioural intention as they influence organizational members' decision making that aim to maximize interest of various stakeholders (joint interest) and encourage decision making based on established rules or deontological standards. This assertion is consistent with Wimbush and Shepard's (1994) view that other ethical climate dimensions support ethical intentions except the egoistic type like instrumental climate.

The present study proceeds with an assumption that instrumental climate in unit trust companies decreases the intention to engage in SRI, while caring climate increases intention to engage in SRI. Furthermore, it is postulated that instrumental climate decrease commitment to SRI behavior and caring climate increases commitment to SRI behavior among fund managers. Similar to previous argument by Ajzen (1985) in Theory of Planned Behavior and Jones (1991) in Issue-Contingent Model, the greater intention to engage in ethical behavior leads to stronger commitment to perform

ethical behavior. Therefore, the present study also assumes that a stronger intention to SRI increases the commitment to SRI behavior among fund managers of unit trust companies. Based on the existing evidences, the following hypotheses have been framed in the study:

H₁: Caring ethical climate positively predicts intention and perceived SRI behavior

H₂: Instrumental ethical climate negatively predicts intention and perceived SRI behavior

H₃: Intention significantly predicts perceived SRI behavior.

H₄: Intention significantly mediates ethical climates association with SRI behavior.

RESEARCH METHOD

This sub-section explains the variables that have been used in this present study. Besides, it also describes the population and sample procedure of the present study. It also elaborates the instrumentation and the procedure of data collection.

Variables description and measurement

The present study consists of five independent variables – caring climate, instrumental climate, independence climate, rules climate, and law and codes climate. These independent variables are derived from the recent work of Roy (2009) which employed the 15 items-scales ECQ. This study employs a dependent variable – the perceived SRI behavior and a mediating variable – the intention to engage in SRI. These dependent and mediating variables are adopted from the previous study of Lewis and Mackenzie (2000) in the United Kingdom. Table 2 summarizes the definition of all variables in this present study.

Target population, setting and sample

The population for this study is fund managers working at unit trust fund companies in Malaysia holding Capital Market Representative License (CMRL) as required by the Securities Commission. As on 30th June, 2010, there were 39 approved unit trust fund companies, as per the license registry maintained by the Securities Commission. In all, 320 licensed fund managers were employed by these companies. Following census method, all the managers have been included for the purpose of the study.

Instrumentation and measurement

Questionnaire method has been followed to collect data. Three broad sections are included in the questionnaire. The fund manager's perception on SRI behaviour has been elicited through Section I. In Section II, the intention of the fund managers to engage in SRI is ascertained. Section III finds out the perception of fund managers about the ethical climate existing in their companies.

For dependent variable, respondents need to answer six statements which have been used to measure perceived SRI behavior. The statements are (i) *I provide an ethically screened portfolio to beneficiaries and clients*, (ii) *I offer advice to investee companies to show them how to improve in their social, ethics and*

Table 2. Definition of the variables.

Variable	Definition and measurement	Type of measure
SRI behavior (Perceived SRI behaviour)	Fund managers perception on the roles of SRI investors (Lewis and Mackenzie, 2000)	Scale
Intention to SRI (Intention)	Fund managers intention to engage in SRI (Lewis and Mackenzie, 2000)	Scale
Caring ethical climate (Caring)	Fund managers' perception on the organisational ethical climate that cares others' interest and well-being (Roy, 2009)	Scale
Law and Code ethical climate (Law and Code)	Fund managers' perception on the organisational ethical climate that complies with state law and profession code (Roy, 2009)	Scale
Instrumental ethical climate (Instrumental)	Fund managers' perception on the organisational ethical climate that encourage pursues of self-interest (Roy, 2009)	Scale
Rules ethical climate (Rules)	Fund managers' perception on the organisational ethical climate that complies with internal rules and procedure (Roy, 2009)	Scale
Independence ethical climate (Independence)	Fund managers' perception on the organisational ethical climate that complies with individual principle and beliefs (Roy, 2009)	Scale

environmental performance (SEE), (iii) I quietly lobby investee companies in a concerted way to adopt better SEE policies, (iv) I work with other investors to promote higher standards of corporate governance, (v) I contribute actively to debate about corporate ethics to the development of public policy and (vi) I campaign publicly for investee companies to adopt better SEE policies. In order to measure mediating variable – intention to engage in SRI, four items have been used. The items are (i) I want to avoid companies which are doing harm to society, ethics and environment (SEE), (ii) I want my investments to help investee companies to make a positive contribution to society, (iii) I want my investment to be used to campaign for investee companies to change and (iv) I intend to invest in ethically clean portfolio. In measuring the independent variables, fifteen statements have been used to capture respondents' perception towards their organizational ethical climate. There are three items for each climate. For caring climate, the three items are (i) In my organization, people look out for each other's good, (ii) In my organization, the most important concern here is the good for all the people in the company as a whole and (iii) In my organization, our major concern is always what is best for other person. The rules climate has employed three items which are (i) In my organization, everyone is expected to stick by the company's rules and procedures, (ii) In my organization, it is very important to follow the company's rules and procedures and (iii) In my organization, successful people go by the book. Instrumental climate has used three items – (i) In my organization, people protect their own interests above all else, (ii) In my organization, people are expected to do anything to further the company's interests, regardless of consequences and (iii) In my organization, people are mostly out for themselves. For law and code climate, three statements have been used: (i) In my organization, people are expected to comply with the law and professional standards over and above all consideration, (ii) In my organization, the law or ethical code of the profession is a

major consideration and (iii) In my organization, the first consideration is whether a decision violates any law. The independence climate has been measured by three items: (i) In my organization, people are expected to follow their own personal and moral beliefs, (ii) In my organization, the most important is each person's own sense of right and wrong and (iii) In my organization, people are guided by their own personal ethics. Six point Likert scaling has been followed in the questionnaire: 6 = strongly agree; 5 = agree; 4 = slightly agree; 3 = slightly disagree; 2 = disagree; 1 = strongly disagree.

Data collection

Data collection has been done in month of October 2010. Questionnaires have been distributed personally to fund managers since the headquarters of unit trust fund companies are in Kuala Lumpur – the capital of Malaysia and questionnaires have been sent by mail to those in the states of Johor, Kedah, Terengganu, Sarawak and Sabah, as they are distantly located from Kuala Lumpur. Respondents were requested to return the completed questionnaire within one month. A follow up call and e-mail was made after two weeks to enhance participation. To remain anonymity, fund managers were not required to indicate their names or identification in questionnaire form. However, some demographic information was requested such as age, gender, highest academic qualification, number of year working as a fund manager, type and size of fund under management. Completed questionnaires were returned directly to researchers using a stamped and sealed addressed envelope. The feedbacks obtained were keyed in into Statistical Package for Social Science 16.0 and later exported to AMOS 16.0 for Structural Equation Modeling (SEM) analysis.

Table 3. Descriptive analysis of variables (N =73).

Variable	Mean	Standard deviation
Perceived SRI behavior	3.77	0.961
Intention	4.74	0.615
Caring	4.51	0.810
Law and code	5.24	0.647
Instrumental	3.26	1.056
Rules	4.81	0.701
Independence	3.57	1.011

ANALYSIS OF RESULTS

This sub-section indicates questionnaire response rate. It also provides details on results of descriptive, correlation, reliability and confirmatory factor analysis (CFA). Additionally, it explains and elaborates the outcomes of Structural Equation Model (SEM).

Response

After a month, a total of 84 questionnaires have been received with a response rate of 26.2%. Screening of questionnaires for completeness of information has resulted in elimination of 11 unusable questionnaires. This has further reduced the sample size to 73 resulting in an ultimate response rate of 22.81%.

Descriptive analysis

The mean for perceived SRI behavior is 3.77 and intention to engage in SRI is 4.74 respectively, showing that in average fund managers have agreed with the proposed statement. In terms of independent variables, law and code climate showed mean of 5.24 and it was higher compared to other climate mean. This provided initial understanding on the perception among fund managers that organizational ethical climate in unit trust fund companies is largely derived by law and code.

It was followed by rules climate, with mean of 4.81. Caring climate resulted in mean of 4.51 and independence climate, 3.57. The mean of instrumental climate mean was the lowest with 3.26, indicating fund managers' disagreement on instrumental climate that aims for self-interest and company's satisfaction only. Table 3 summarizes descriptive analysis of all variables employed in this study.

Correlation analysis

Table 4 shows the linear correlation between the independent variables. It reveals that multicollinearity (high correlation between variables) is found to be absent

among the selected independent variables. Caring climate has a significant positive correlation with rules climate and law and code climate at ($p = 0.01$), respectively. This direct association explains significant link of organizational ethical climate that complies with law of state, code of profession and internal rules in shaping climate that takes into account the interest of others. Besides, rules climate and law and code climate also have a significant positive correlation at ($p = 0.01$). This direct association has been expected because organizational internal rules and procedures are largely derived from existing law state or profession codes. In addition, independence climate has a significant positive correlation with caring climate and independence climate at $p = 0.05$. This indicates that individual moral principles and beliefs are associated with climate that cares of others as well as climate that pursues self-interest attainment.

Confirmatory factor analysis

Confirmatory factor analysis (CFA) has been employed in this study. This analysis provides better understanding on the interaction effects between employed variables. Moreover, this analysis helps to confirm the employment of two different instruments that measure ethical climate based on Roy (2009) revised ECQ, and also intention and perceived SRI behavior from Lewis and Mackenzie (2000). According to Byrne (2001), CFA model fit is based on multiple criteria that reflected statistical, theoretical, practical consideration. Chi-square (χ^2) measure is the most generally reported measure of model fit; however, Raykov (1998) argues that Chi-square should not be considered in isolation because it is sensitive to both sample size and the degrees of freedom in model, later leading to the rejection of too many models.

Therefore, Byrne (2001) proposes that other goodness-of-fit statistics should also be employed and considered when deciding the model fit as it takes a more pragmatic approach in the evaluation process. Those statistics are Chi-square/degree of freedom (χ^2/df), Goodness-of-fit (GFI), Tucker Lewis Index (TLI), Comparative Fit Index (CFI), and Root-Mean-Square Error of Approximation (RMSEA). Furthermore, Byrne (2001) recommends that RMSEA is one of the most informative indices of model fit since it takes into account the error of approximation in the population, has a less stringent requirement on Chi-square, and is less sensitive to the number of sample and parameters in the model. From the preceding argument and consistent with Byrne (2001) pragmatic approach in determining model fit, a set of goodness of fit indices were observed in this study including χ^2 , χ^2/df , GFI, TLI, CFI and RMSEA. Table 5 provides summary of recommended fit indices.

Before checking CFA, reliability of each variable has been examined. This Cronbach alpha reliability was tested using SPSS. The dependent variable – perceived

Table 4. Correlation among independent variables.

Variables	Caring	Law and code	Instrumental	Rules	Independence
Caring	-				
Law and code	0.465**	-			
Instrumental	-0.134	-0.053	-		
Rules	0.462**	0.672**	0.019	-	
Independence	0.285*	0.054	0.267*	0.085	-

** $p < 0.01$; * $p < 0.05$.

Table 5. Goodness of fit criteria on model fit.

Goodness of fit criteria	Type	Acceptable	Recommended values	Interpretation
Chi-square (χ^2)	Model fit		$p > 0.05$	Non-significance means the model fits the observed covariance and correlations
Chi-square/df (χ^2/df)	Absolute Model Parsimony	Less than 3.0	Less than 2.0	A value 0 indicates poor model fit. Values ranging from 2.0 to 3.0 signify mediocre fit.
Goodness-of-fit (GFI)	Absolute Fit	0 (not fit) to 1 (perfect fit)	Greater than 0.90	A value 0 indicates poor fit and value more than 0.90 indicates good model fit.
Comparative Fit Index (CFI)	Incremental Fit	0 (not fit) to 1 (perfect fit)	Greater than 0.90	A value 0 indicates poor fit and value more than 0.90 indicates good model fit.
Tucker-Lewis Index (TLI)	Incremental Fit	0 (not fit) to 1 (perfect fit)	Greater than 0.90	A value 0 indicates poor fit and value more than 0.90 indicates good model fit.
Root Mean-Square Error of Approximation (RMSEA)	Absolute Fit	0 to 1	Less than 0.08	A value less than 0.05 indicate good model fit. Values ranging from 0.05 to 0.08 indicate acceptable fit. Values above 0.08 to 0.10 indicate mediocre fit. Values more than 0.10 indicates poor fit.

Sources: Hair et al. (2006), Kline (2005) and Byrne (2001).

SRI behavior consisting of six items has resulted in alpha reliability of 0.86. The mediating variable – intention to engage in SRI has four items with alpha reliability of 0.78.

Lewis and Mackenzie (2000) also found acceptable range reliability in their previous analysis. Caring climate had alpha reliability of 0.80, rules climate ($\alpha = 0.73$), instrumental climate ($\alpha = 0.78$), law and code ($\alpha = 0.87$) and independence climate ($\alpha = 0.79$). These reliability scores are consistent with previous studies like Victor and Cullen (1988) that reported range of 0.6 to 0.80; Cullen et al. (1993) scored 0.60 to 0.85 and Vaicys et al. (1996) recorded range of 0.60 to 0.89. In short, based on these values, it was concluded that reliability of all

variables employed in this present study was satisfied (Nunnally, 1978).

CFA has been employed to examine the variables in this study. It can be seen from Figure 1 that the model indicating the interaction of these variables shows good fit indices $\chi^2 = 0.108$, $df = 1$, $p = 0.742$, $\chi^2/df = 0.108$; GFI = 1.000; CFI = 1.000; TLI = 1.191 and RMSEA = 0.000. The CFA results support the proposed model and the construct distinctiveness of the variables. To test the hypotheses of the study, regression analysis has been conducted following procedures recommended for testing mediated moderation models (Muller et al., 2005; Baron and Kenny, 1986).

Table 6. A Summary of the dimensions and model estimation.

Variable		Estimate	S.E.	C.R.	P
Intention	caring	.296	.101	2.923	.003**
Intention	rules	.150	.131	1.141	.254
Intention	instrumental	.060	.067	.897	.370
Intention	law and code	-.103	.142	-.723	.470
Intention	independence	-.131	.072	-1.814	.070
Perceived SRI behavior	intention	.500	.171	2.930	.003**
Perceived SRI behavior	caring	.388	.154	2.517	.012*
Perceived SRI behavior	instrumental	.164	.098	1.678	.093
Perceived SRI behavior	independence	-.127	.108	-1.178	.239
Perceived SRI behavior	law and code	-.026	.169	-.154	.878

** $p < 0.01$; * $p < 0.05$.

Results

Figure 1 indicates that caring climate has a higher influence on perceived SRI behavior (0.33) than intention (0.32), instrumental (0.18), law and code (-0.02) and independence (-0.13). The analysis also shows that caring climate has a higher influence (0.39) on the intention to engage in SRI than other climates – rules (0.17), instrumental (0.10), law and code (-0.11) and independence (-0.22). It also means that caring, instrumental, law and code and independence climate have direct and indirect effect on perceived SRI behavior with intention as the mediating variables. However, only caring climate has significant indirect effect on perceived SRI behavior through intention with $p = 0.003$. Intention has a direct association with perceived SRI behavior (0.32). The analysis also shows that caring climate significantly influences perceived SRI behavior with $p = 0.012$. It supports that creation of stronger caring climate in unit trust fund companies encourages stronger motivation and commitment to involve in SRI. Intention also has a significant influence on perceived SRI behavior with $p = 0.003$. This finding supports Hofmann et al. (2007, 2004) who postulate that a strong intention encourages SRI behavior among investors. In conclusion, Hypotheses 1 and 3 are supported. The analyses found that caring climate positively and significantly predicts intention and perceived SRI behavior; while intention positively and significantly predict perceived SRI behavior.

With regard to instrumental climate, the analysis finds a positive relationship with intention and perceived SRI behavior. Thus findings contradict the initial postulate; thus Hypothesis 2 is not supported. In addition, the results are not significant, since $p = 0.370$ and $p = 0.093$ respectively. This requires more thorough analysis in future and test against larger size of respondents. However, the initial argument that this study can forward is that fund managers face multiple agency relationship while performing their duties, especially to maximize the

companies' revenue and satisfying personal expectation and performance (egoism/local) grid. It could also positively encourage fund managers' motivation to engage in SRI, if they forecast higher returns from such investment. Besides, Hypothesis 4 is marginally supported. The analyses indicate that intention significantly mediates the effect of caring climate only towards perceived SRI behavior, while other climates – instrumental, law and code, rules and independence do not result in significance outcome. Table 5 provides summary of the unstandardized parameter estimates and t – values for the various paths in the SEM of the model shown in Figure 1.

Assessing the multiple fit indices in Figure 1, the modified SEM model showed good fit. The overall model scored a value of 1.00 for GFI, meeting the threshold of 0.90. The values for CFI and TLI are 1.000 and 1.191 respectively. These exceed the recommended threshold of 0.90. Moreover, the RMSEA value of the overall model is 0.00 which is below the recommended threshold value of being below 0.05 to 0.10 (Hair et al., 2006). All the fit indices exceed the recommended guidelines for good fit. Thus, this study concludes and offers the model of ethical climate-SRI which reflects good measurement and statistical fit. In summary, SEM was defined to assess the relationship between ethical climates, with the intention and perceived SRI behavior. The model showed significant parameter estimates and acceptable fit indices, compared with recommended guidelines. The major implication of the SEM model is that the intention to engage in SRI behavior can be enhanced through caring ethical climate that emphasizes on mutual or joint interest (ethical criterion) and relying on external institutions while making a decision (locus of analysis) (Table 6).

Conclusion

The study has brought out several interesting findings. Caring ethical climate has a significant direct effect on

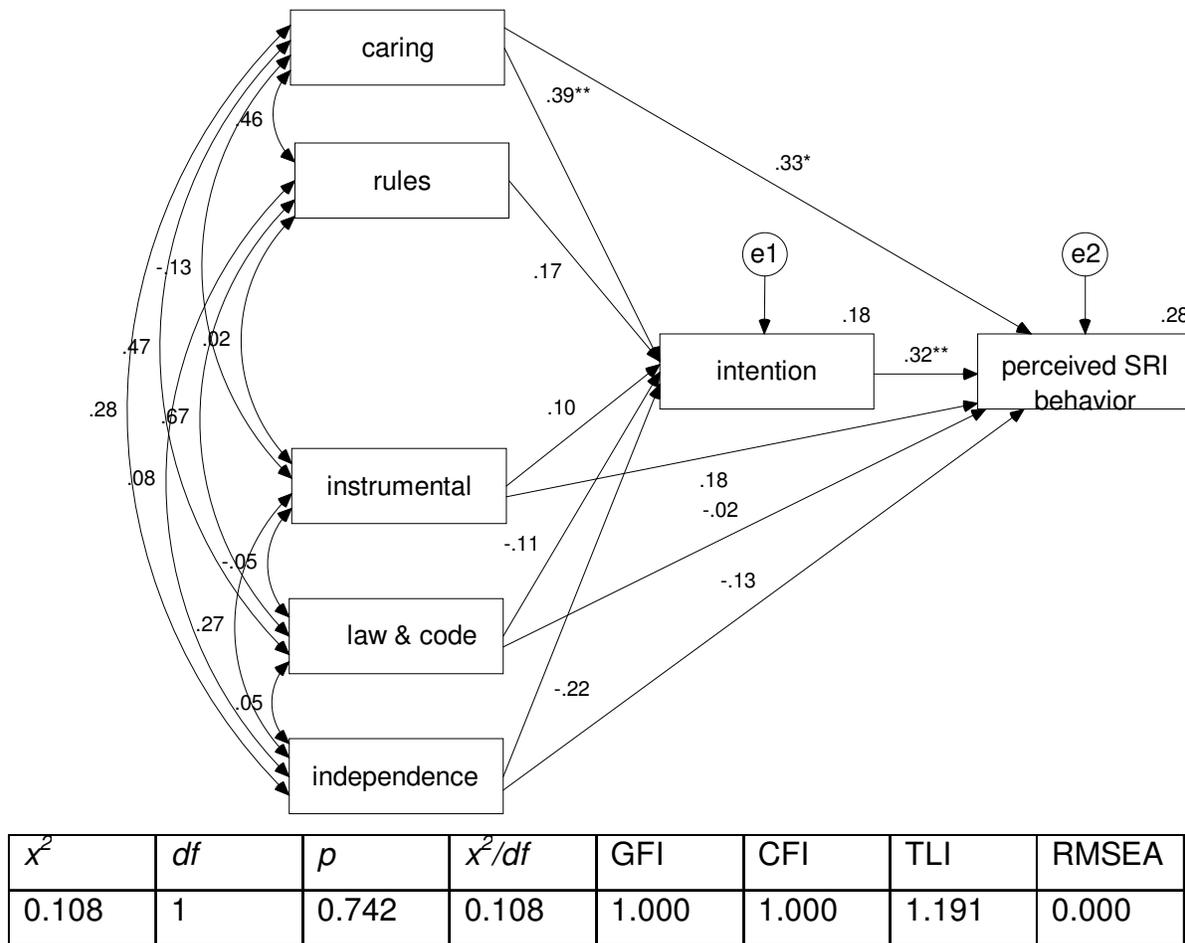


Figure 1. Structural equation model for ethical climate, intention and socially responsible investment behavior. Note: Chi square/degree of freedom (χ^2/df), Goodness of fit (GFI), Comparative Fit Index (CFI), Tucker Lewis Index (TLI), and Root Mean Square Error of Approximation (RMSEA). ** p < 0.01; *p < 0.05.

perceived SRI behavior and it also has a significant indirect effect on perceived SRI behavior through intention. Besides, intention also has a significant direct effect on perceived SRI behavior. However, this study does not find support for the associations of instrumental climate with intention and perceived SRI behavior. Therefore, fund managers, unit trust fund companies management, regulators and related investment associations could take advantage to initiate more programs that enhance caring ethical climate such as continuous ethical enhancement, more trainings to expose and create awareness on the importance of SRI, corporate social responsibility, ethical and fair business conduct, and pro green technology issues. Besides, correlation analysis has shown significant association between caring-rules and caring-law and code climates, thus caring climate can also further be enhanced through improvement of related laws, standard operating procedures, codes of ethics or codes of conduct and internal rules.

Besides, the CFA has evidenced that the organizational ethical climate and SRI behaviour relationship model in this present study are statistically fit. Even though recording the actual SRI behavior is challenging and costly, the fitness of intention and perceived SRI behaviour measurement in this study provides an alternative to the use of vignettes that are commonly employed in SRI behaviour research such as Hofmann et al. (2007, 2004). Furthermore, the items used for perceived SRI behavior measurement reflect SRI three common strategies – screening, preference, and shareholder engagement/shareholder advocacy as proposed by Hellsten and Mallin (2006) and Schueth (2003). In addition, the use of modified 15 item-scales ECQ is appropriate to predict intention to engage in SRI and perceived SRI behaviour. Therefore, for future studies that examine the influence of organizational factors on ethical decision making, ethical climate is expected to continue to be used as a favored and recognized instrument. Indeed, as far as SRI literature is concerned,

this present study is one of the earliest to validate organizational ethical climate relationship with SRI behaviour.

Even though this study found strong support on the impact of caring climate on intention and perceived SRI behavior, opportunities exist for further enhancement. The analysis found that instrumental climate does not predict mediating and dependent variable as postulated and evidenced by previous studies like Shafer (2008) and Buchan (2005). Therefore, further assessments in the association of instrumental climate with SRI behaviour could provide more conclusive outcomes. Besides, the predictive power of the model is lower, that is, 18% for intention and 28% for perceived SRI behavior. Thus, the inclusion of other possible variables is recommended; for instance the incorporation of fund managers' attitudes, age, level of education, number of working year experience, personal moral judgments and moral intensity. Other organizational factors like reward system, top management commitment, supervisors' influences, investment objective and acceptance level towards return and risks of investment may be incorporated in future study. Similar analysis can also be conducted in different sets of environments to enhance international comparisons. In addition, similar instruments can be employed to investigate similar relationship among fund managers in other investing entities like insurance companies, takaful (Islamic insurance), banks, and pension funds since the present study takes setting among fund managers of unit trust fund companies.

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