Greener HR: Understanding senior management's adoption decisions through the Theory of Planned Behaviour

Abstract

Human Resources (HR) policies and practices have changed due to global environmental instability. These policies and practices are key factors for successful environmental management. Using the Theory of Planned Behaviour, this article aims to understand the critical factors which influence senior management's decision to adopt 'green' HR practices. Data were collected from 210 organisations in Australia using two separate surveys. Survey one, which was addressed directly to HR managers and directors, contained questions relating to HR policies (the dependent variables), while survey two, which was addressed directly to CEOs and senior managers, contained questions about environmental-related attitudes, subjective norms and perceived control (the independent variables). Results indicated that senior management's environmental-related attitudes, subjective norms from stakeholders and perceived green resource readiness influenced their decision to adopt green HR initiatives. However, attitudes and green resource readiness in particular had greater impacts than subjective norms. Limitations, implications and future research are also outlined.

Keywords: green HR, green adoption, green behaviour, environmental attitudes

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Introduction

Climate change has become an increasing concern in recent years. To mitigate climate change impacts international environmental standards and other formal environmental strategies have been created in order to balance both industrial growth and safeguarding of the natural environment (Daily & Huang 2001). Businesses are often coerced by industrial or federal regulations to employ clean technologies or environmentally-friendly production processes to create 'green' products (Özen & Küskü 2009). To become a green business an organisation should carry out and produce not only green processes and products, but also green human resources (HR) practices (Callenbach et al. 1993). However, while there is an increasing number of green technology adoptions (del Río González 2005), green HR initiatives are rare (Millard 2011).

To promote green HR initiatives it is necessary to understand the significant factors influencing their adoption. This study aims to develop an integrative model of green HR initiative adoption in order to understand the antecedents of organisational adoption behaviour and promote the successful implementation of green HR initiatives.

This study contributes to human resource management (HRM) and green management literature in two ways: firstly, this study identifies key factors that influence the adoption of green HR initiatives; and secondly, it develops an integrative adoption model of green HR initiatives.

Changing toward green human resource management

Organisational change can be seen to arise from two fundamental processes: one is formal, proactive and planned, while the other is informal, ad hoc and emergent (Weldon 2000). An example of formal planned change is the introduction of e-learning in universities in response to opportunities and expectations generated by knowledge-based, globalised learning environments (Hutchinson 2007). In contrast, Tieto-X (Finland's leading contract work solutions company) experienced emergent change arising from unplanned, increasing turnover in its top management team and the consequential acquisition of new competencies (Wikström 2004).

Furthermore, organisational change can be episodic or continuous (Weick & Quinn 1999). Episodic change is infrequent, discontinuous and intentional – sometimes termed radical change – and involves replacing one organisational strategy or technology with another. For example, in the 1980s BMW automobiles focused on engineering and vehicle

quality; however, by the mid-2000s quality was less of a concern in the automobile industry because most models were well built and reliable. Therefore, BMW shifted its strategic orientation towards design and brand appeal (Dawson & Kerwin 2004). Continuous change, on the other hand, is an ongoing, evolving and cumulative process – sometimes termed incremental change. Continuous change often involves incremental upgrading of operational procedures or systems in response to ongoing changes in the organisation's external environment.

A recent study conducted by Plowman et al. (2007) defines organisational change as scope (either convergent or radical) and pace (either continuous or episodic). Based on a case study of Mission Church, Plowman et al. (2007) explained that organisational change can be driven by organisational instability or organisational inertia, which emerge from improvisation and learning. Green HR initiatives can mostly be seen as a planned, continuous change for today's organisation. Most green HR practices start with the design and implementation of a medium- to long-term sustainability strategy (Epstein 2008). For example, a green HR initiative was started by HR managers from Walmart which gradually introduced the use of glassware rather than paper cups in the company kitchen. As a result the company saved US$12,000 a year in reducing paper waste. Woolworths, the largest supermarket/grocery store chain in Australia, installed staff kitchen sinks which were fitted with low-flow taps and introduced an Eco Ambassador program to provide employees with green behaviour at-work training.

HR policies and practices have changed due to global environmental instability. These policies and practices are the key factors for successful environmental management (Daily & Huang 2001). HR policies can play a significant role at the national level in cutting greenhouse gas emissions, for example through car pooling or recycling programs. At an organisational level, businesses can benefit from green HR practices twofold: first, businesses can adopt green HR practices, building their brand as a green employer thereby attracting talented employees; and second, firms can adopt green HR practices to reduce product and labour costs (e.g. recycling).

Organisations have been increasingly confronted with environmental issues. In response many companies include environmental management as a part of their business strategy. The change towards greener HR practices can be beneficial to organisations in cost reduction and employee retention and attraction (Muster & Schrader 2011). However, a survey by the Society for Human Resource Management (SHRM 2008) indicated that only 22 per cent of organisations formally adopt green HR initiatives and 50 per cent of firms have

no plan to adopt them at all. Examples of green initiatives include recruiting employees with green attitudes and green experience, or providing employees with training programs or information sessions on green practices.

A systematic literature review by Renwick, Redman and Maguire (2013) demonstrated that organisations can improve their environmental management by enhancing employees' ability, motivation and involvement.   The authors concluded that organisations can develop green workforces by attracting/recruiting green-aware employees. Further, organisations should provide training or education programs in relation to environmental management. Renwick and colleagues (2013) also illustrated that performance appraisals and incentive systems should include green objectives and performance indicators. Finally, organisations should encourage employees to engage in green activities such as having green champions. The review by Renwick et al. (2013) highlights the important role of human capital and its impact on environmental management.   The authors also developed a green HRM model based on ability, motivation and opportunities. This model provides good practices for organisations to develop a green workforce as described above.

A number of empirical studies have also illustrated the role of HR in environmental management and climate change. For example, two studies examined four organisations introducing ISO14001 certification, reporting that an effective way to encourage employees to participate in the ISO activities was through HR policies and practices (Jabbour et al. 2012; Jabbour & Santos 2008). More recently, some HRM scholars have called for more research in linking environmental management into HR policies and practices (Muller-Camen et al. 2010; Renwick et al. 2013).   Recent research has gradually focused on HR strategy to encourage employee involvement in green initiatives (see Daily et al. 2012).

Currently literature on environmental management also recognises the important role of HRM in encouraging employee participation in green initiatives. Egri and Herman (2000) proposed the need for environmental leaders who have the skills to drive employees' green participation. These skills include collaboration, granting responsibility to subordinates, two-way communication, orientation towards change, charisma, creation of individualised confidence and consideration. Senior managements' contribution is considered essential because they can create and foster conditions through their endorsement. However, while much research highlights the important role of HRM in environmental management senior managers may not see environmental aspects as their concern. Attitudes are, therefore, usually an important driver in adopting green HRM practices (Betania & Roberto 2007; Ghosh & Kumaraswamy 2002). Understanding the key factors that drive organisations to

adopt green HR initiatives will increase the uptake of formal green initiatives within organisations. This paper aims to identify these key factors and develop an integrative model of green HR initiative adoption based on the Theory of Planned Behaviour (TPB).

Applying the Theory of Planned Behaviour

The theory of planned behaviour - TBP (Ajzen 1991) forms the theoretical framework of this article because it offers a clearly defined model that allows the investigation of the influence that attitudes, subjective norms and volitional control have on adopting green HR practices. Over the years researchers have used TPB to explain environmentally-friendly behaviours such as pollution prevention practices (Cordano & Frieze 2000), recycling (Boldero 1995), green purchasing (Kalafatis et al. 1999) and green IT (Sarkar & Young 2009). The model has also provided robust estimates.

TPB is a social psychological model predicting an individual's behaviour on the basis of his or her attitudes, normative beliefs and control and, through vigorous testing, has been found to be relatively robust (Sheeran & Taylor 1999). TPB posits that a person's intention to carry out a behaviour is the immediate antecedent of that behaviour. Intention is predicted by the interaction of three factors: 1) attitudes, 2) subjective norms, and 3) perceived behavioural control. TPB has been widely supported by research examining a broad range of behaviours such as exercise (Hagger et al. 2002), readiness for change (Peach et al. 2005) and environmental behaviour (Bamberg, 2003) among many others.

Previous studies have employed TPB to explain the behaviour at an individual level; however, TPB can be adapted and applied to firm-level dynamics, as previous studies have argued that individual-level actions influence firm-level outcomes (see Unsworth et al. 2012; Unsworth et al. 2009). Key decision-makers such as CEOs or HR managers are governed by their attitudes and perceptions of norms. These attitudes and norms will influence individuals' (i.e. CEOs' or HR managers') decision-making in relation to the organisation's adoption of specific green practices. Top management attitudes are a critical determinant of organisational policies and practices adoption (Dutton & Ashford 1993; Rynes & Rosen 1995). As a result, TPB can be explained as top managements' adoption decisions, which then influence firm-level outcomes.

Based on the TPB framework this study proposes that top management's attitudes toward environmental issues are likely to influence the adoption of green HR initiatives. Further, senior management's perceptions, which are influenced by stakeholders (subjective norms), influence their decision to adopt specific green practices. One category identified by Lehman et al. (2002) is resource readiness, which represents a facet of perceived control.

That is, when top management perceives that they have the 'right' resources (both financial and non-financial) their perceived control over the adoption of green practices will be increased. The next section develops the proposed model of green HR initiative adoption as well as the hypotheses based on the TPB framework.

Environmental-related attitudes

TPB posits that positive beliefs or attitudes about a behaviour and its outcomes will lead to an increase in that behaviour. Previous studies indicate that beliefs about the relationship between humans and the environment increase individual awareness, which turns into pro-environmental behaviour (e.g. Dunlap et al. 2000; Ibtissem 2010; Stern 2000). Accordingly, it is possible that when an organisation's senior management has an ecological world view and is aware of the firm's environmental impact they will be more likely to adopt a green approach as part of business operations. Attitudes play a key role in one's behaviour; this pertains to individuals as well as to organisations (Unsworth et al. 2009). When top management does not perceive that the environment will impact upon their business they will be less likely to drive the company in a green direction:

Hypothesis 1: Senior managers with a positive attitude towards environmental issues will be more likely to adopt green HR initiatives.

Subjective norms

Subjective norms are the social influences impacting on an individual's intention to perform or not to perform (Ajzen 1991). Subjective norms are determined by the normative expectations of others (e.g. 'my friends think that I should buy a green product') and motivation to comply (e.g. 'I generally want to do what my friends think I should do') with these expectations. In the business context subjective norms are viewed as senior management's perceptions of whether key stakeholders expect them to adopt (or not adopt) green HR practices.

There are two major stakeholders that can influence an organisation's adoption decisions: (a) external stakeholders and (b) internal stakeholders. Between the two categories external stakeholders, such as customers and regulators, are viewed as a firm's most influential stakeholders (Christmann 2004; Etzion 2007). External stakeholders, especially government or industry, may coerce organisations to adopt green practices, for example: the carbon emissions trading scheme in Australia may influence top management to adopt a green approach in their business, customers may request companies to apply a certain environmental certification to their products, or top management may be obliged to adopt green operations either to avoid a fine or to maintain their market share or profit.

Green HR initiatives can be viewed as a voluntary green policy. Therefore, internal stakeholders, such as HR management teams, middle managers or employees, may also be influential stakeholders. These internal stakeholders are interested in many aspects of a firm's green behaviour. Organisational members have been recognised as important drivers for green adoption and the creation of an ecological climate in the workplace (Aguilera et al. 2007). Their expectations can also influence a firm to adopt green HR initiatives in a bid to attract employees. Backhaus et al.'s (2002) study indicated that graduates prefer companies that have a concern for community and the environment.

Senior management's perceptions of green HR adoption can be influenced by the judgement of other stakeholders (Rivis & Sheeran 2003). These subjective norms then influence management's decision to adopt green HR initiatives (Unsworth et al. 2012):

Hypothesis 2a: Internal stakeholders will positively influence senior management's decision to adopt green HR initiatives.

Hypothesis 2b: External stakeholders will positively influence senior management's decision to adopt green HR initiatives.

Green resources readiness

Perceived behavioural control (PBC) is defined as the extent to which organisations have complete control over their adoption behaviour. There are many who suggest that organisational readiness is important in adoption behaviour, such as having computer-based HR information systems (Teo et al. 2007), 360 degree feedback (Morgan et al. 2005) or workplace diversity (McCuiston et al. 2004). Organisational readiness can be viewed as operational readiness, financial readiness, staffing readiness, technical readiness and knowledge readiness. Green HR initiatives can be viewed as radical changes within an organisation. They also require significant time and resources to put them into practice.

Introducing green HR initiatives can incur substantial financial and non-financial costs. For this reason, in the absence of slack financial resources or manpower, senior managers may perceive their organisation as lacking control over green HR initiative adoption. Thus, the level of financial and non-financial resource readiness can impact on senior managers' decisions to adopt green HR initiatives:

Hypothesis 3: Senior management who perceive high levels of green readiness will be more likely to adopt green HR initiatives.

The proposed research model is displayed in Figure 1.

Insert figure 1 about here

Methods

The study's unit of analysis was senior management in Australia. Our sample was chosen from the Permission Corporation database which yields 600 organisations in the health and community services industry sectors. Respondents were CEOs, senior managers or HR managers and directors. A letter of invitation including the online survey link was sent to each respondent, followed by a reminder after two weeks. To minimise common method variance independent variables and dependent variables were collected from two sources using two separate surveys. Survey one, which was addressed directly to HR managers, contained questions relating to HR policies (the dependent variables), while survey two, which was addressed directly to CEOs and senior managers, contained questions about environmental-related attitudes, subjective norms and perceived control (the independent variables).

The company response rate was 45 per cent. Of these, 62 companies did not provide responses from both top management (CEOs and/or senior managers) and HR managers. Therefore those 62 companies were excluded and the final sample for this study was 210 companies (response rate of 35 per cent). Participating organisations were small- to medium-sized organisations (average number of employees $n = 229$) that had been in business approximately 28 years.

Measures

Measures from this study were adapted from the TPB framework. The independent variables were environmental attitudes, subjective norms and green readiness (perceived control). The actual adoption behaviour rather than the intention to adopt was used as the dependent variable. While intention to act and actual action are highly correlated researchers are encouraged to measure the actual behaviour over intention to act (Baumeister et al. 2007). The measures used in this article are examined in more detail below.

Environmental-related attitudes. This construct examines senior managers' attitudes towards the relationship between environmental conditions and their consequences. Six questions were adapted from Ibtissem's (2010) study using a 7-point Likert scale (1 = strongly disagree and 7 = strongly agree). Example questions include, 'Environmental quality will improve if our company uses less energy' and 'Saving energy will be advantageous for our company'. The internal consistency of this scale was .91.

Subjective norms. This construct is defined as the perceived social norms to engage or not engage in a behaviour (Ajzen 1991, p. 188). It is determined by normative belief and

motivation to comply. This measure assessed organisations' perceptions of stakeholders' beliefs. According to stakeholder theory (Freeman & Reed 1983), the key stakeholders are external (i.e. government, customers and competitors) and internal (i.e. senior managers, middle managers and employees). Both these stakeholder groups can influence organisational engagement in green HR adoption. The subjective norms are often determined as normative belief multiplied by motivation to comply. Although some research suggests that measuring motivation to comply is not necessary, if the research is interested in the relative influences of each specific belief then the motivation to comply should be calculated (Ajzen & Driver 1992; Ajzen & Fishbein 1972). In an organisational context the voice of stakeholders may not be equal, thus to measure the subjective norms in this context motivation to comply should be considered (Bingham et al. 2005). Employing the TPB guidelines and following previous studies (Ajzen 1991; Unsworth et al. 2009), the first question asked 'To what extent does your organisation believe that [government, customers, competitors, senior managers, middle managers and employees] influence your organisation in introducing green human resource practices?' (1 = not at all and 7 = extremely influential), while the follow-up question asked 'To what extent does your organisation value the opinions of [government, customers, competitors, senior managers, middle managers and employees] in relation to introducing green human resource practices in your organisation?' (1 = not at all and 7 = extremely valuable). The two items were then multiplied for each stakeholder to obtain measures of subjective norms for each type of stakeholder. The internal consistency of this scale indicated good reliability (internal stakeholders = .89; external stakeholders = .80).

Green resource readiness. This measure assessed slack resources allocation (financial and non-financial) within companies. Three-items were adopted from Nystrom et al.'s (2002) study using a 7-point Likert scale (1 = strongly disagree and 7 = strongly agree). Examples of these items include 'Our company has ample discretionary financial resources to support environmentally-friendly-related projects' and 'Our company can always find the manpower to work on environmentally-friendly-related projects'. The internal consistency of this scale was .83.

Green HR Initiatives. This construct was adapted from SHRM's (2008) survey which examined green programs within organisations. Respondents were asked if their company provided any of the ten green practices listed, including 'Promoting print jobs on double-sided paper', 'Providing training programs or information sessions for employees on green practices' and 'Recruiting employees with green attitudes and green experience' (0 = never

and 4 = always). This construct is assessed as an aggregated measure. The internal consistency of this scale was .85.

Results

Firstly, Exploratory Factor Analysis was employed to examine construct validity and reliability. To test construct validity this study used discriminant validity (the measures of each concept should be different from the other concepts) and convergent validity (the correlation among items which make up the scale). Secondly, path analysis was performed to verify the proposed hypotheses.

Construct validity and reliability

Construct validity is the extent to which the studied constructs (i.e., environmental-related attitudes, internal/external subjective norms and green resource readiness) do actually measure according to the theory (Bagozzi et al. 1991). Factor analysis is a complex statistical procedure which can be conducted to assess construct validity (Bagozzi et al., 1991; Goodwin, 1999). Varimax rotation was used to determine the most suitable solution. All variables loaded significantly (>0.5) on four factors, namely environment-related attitudes, internal subjective norms, external subjective norms and green readiness (Table 1). A scree test, which is a technique used to determine the number of factors to retain in a factor analysis, also suggested four factors. The amount of variance explained by each factor was 36.48 per cent (environmental-related attitudes; six items), 18.01 per cent (external subjective norms; three items), 12.69 per cent (green resource readiness; three items) and 7.79 per cent (internal subjective norms; three items) respectively. This means all questions were measured according to the original theory.

Insert Table 1 about here

Table 2 illustrates the correlation among variables and construct reliability (the degree to which questions produce stable and consistent results). The construct reliability is determined by the Cronbach Alpha Coefficient of internal consistency. Cronbach Alpha values range from 0-1, as a rule of thumb the value of 0.70 or higher refers to good reliability (Cronbach 1951). The correlation coefficients of environmental-related attitudes ($r^2 = .63$, $p < .01$), subjective norms ($r^2_{external} = .50$, $p < .01$; $r^2_{internal} = .59$, $p < .01$) and green resource readiness ($r^2 = .69$, $p < .01$) were positively associated with green HR initiative adoption. The

Cronbach Alpha reliabilities of all constructs were between .80 - .91, indicating good reliability among scales.

Insert Table 2 about here

Testing hypotheses

To test the hypotheses multiple regression analysis was performed. The following variables were entered as control variables in the first block of regression analysis: (1) year company established, (2) company size, and (3) gross revenue. The next block was: (1) environmental attitudes, (2) internal subjective norms, (3) external subjective norms, and (4) green readiness.

The Durbin–Watson statistic test detects the presence of autocorrelation due to residuals from a regression analysis. The Durbin-Watson statistic value is 2.15 indicating there is no autocorrelation. The Variance Inflation Factor (VIF) is an indicator of collinearity among the variables in a regression model. Values of VIF that exceed 10 indicate multicollinearity. VIF values from this study range from 1.00 to 1.40, thereby indicating that multicollinearity is unlikely to be a problem.

After controlling for company demographic information the four independent variables produced an adjusted R^2 of .79 (F = 81.16, $p < .001$) for the prediction of green HR initiative adoption. The strongest predictor was green resource readiness (β = .48), followed by environmental attitudes (β = .28), internal subjective norms (β = .27), and external subjective norms (β = .18).

Insert Table 3 about here

Discussion

This study examines the effects of environmental attitudes, subjective norms (internal and external) and green resource readiness on green HR initiative adoption. In doing so the proposed model draws from the management and psychological literature and finds support for our hypothesised model. More specifically, this study indicates that resource availability and attitude components play a major role in green HR initiative adoption.

The study findings show that when senior management perceive environmental issues to be important this attitude impacts on their decision to adopt green practices. This finding

explains that when senior management are mindful that environmental issues impact not only globally but also on the company this awareness then motivates senior management to change their HR activities and practices (Lehman et al. 2002; Simpson & Flynn 2007). The relationship between attitudes and behavioural change found in this research has also been well supported in other studies. Tzokas and Saren (1997) suggested that senior management who perceived the importance of adopting innovative ways of doing business tended to be involved with new product development activities. Accordingly, senior management who are aware of how environmental issues could impact their business are more likely to incorporate a green approach in their business process, particularly green practices within their organisations.

This article demonstrates that when senior management perceive the organisation has sufficient resources to implement green HR activities they more likely to adopt them. For this reason, in the absence of slack resources, senior management may have considerable difficulty in offering or supporting green policies and practices. This finding is also supported in other fields such as new IT adoption. For example, Schrum and Glassett (2006) reviewed research on integrating technology in teaching by teachers and other educational leaders in the P-12 school environment. Within their review they identified barriers (limited budget, time and people) that inhibited the effective use of technology in classrooms. Similarly, empirical findings from small business owners showed that one of the barriers to providing e-learning training for employees was insufficient resources (Sambrook 2003).

This article concludes that both internal and external stakeholders' beliefs influence senior management's decision to adopt green HR practices. Further, the findings also demonstrate that subjective norms seem to have a stronger effect on initiative adoption. This finding could be explained by the fact that HR policies and practices often involve employees' participation (Harry 2003). Therefore, internal stakeholders would be significant drivers of internal policies or practices, such as green HR initiatives. As a result, external stakeholders seemed to have a less significant influence on green HR initiatives. It can be speculated that green HR initiatives that are driven by external stakeholders may face more resistance among employees than those driven by internal stakeholders. This study did not aim to examine resistance to green HR initiative implementation; therefore, future studies can perhaps investigate this research area.

There are some limitations to this study that are important to note. Firstly, this study used a cross-sectional design, thus has not been in position to track changes in green policies over time. Secondly, this study employed a self-reporting survey, so respondents may report

positively with both independent and dependent variable constructs. To minimise the common method variance (i.e. variance which is attributable to the measurement method rather than to the constructs the measures represent, Padsakoff et al., 2003), this study approached senior management to answer the organisational overview questions (independent variables) while HR managers responded to the HR policy-related questions (dependent variables). For future research it would be very interesting to consider a longitudinal approach, investigating how the relationship among variables changes over time.

The present study was designed using a quantitative approach; however, the nature of organisational change is sophisticated. A quantitative research design may limit our understanding of this complex phenomenon. Future research should integrate qualitative investigation as outlined by previous research such as Plowman et al.'s (2007) study. A future study could also investigate multiple change events that may result from different drivers and processes. Future research could also examine other green HR practices such as green job descriptions which include required green behaviours. The present study was designed to examine predictive factors of green HR initiative adoption, rather than the change processes. Thus, the current quantitative approach is deemed to be appropriate for the present study scope.

Implications

This study provides implications for research and practice. Firstly, this study contributes to organisational behaviour and HR by drawing attention to the relationship between TPB constructs and green adoption behaviour. This study enhances our understanding of key factors that can drive organisations to become greener. Although the TPB has been extensively applied in social science research it has been limited to only an individual level. This study complements the theory by elaborating that TPB can be applied to firm-level outcomes through key decision-makers' beliefs and perceptions of norms.

Secondly, this study has practical implications for CEOs or HR managers who want to drive organisations to become greener. As TPB suggests, attitudes can inspire behaviour and norms can be influenced to make environmental activities more common and socially accepted (Nisbet & Gick 2008). The role of internal stakeholders such as management and employees can influence organisational direction toward green practice. From the top-down approach senior management can integrate green practices as a part of HR strategy. Senior management can drive and increase employees' commitment to and awareness of the issue of environmental sustainability through green strategy. From the bottom-up approach the enactors of green workplace behaviours are employees. Effective green initiatives should be

encouraged from employees with top management support. Employees can drive the greener workplace by initiating green activities or acting as green champions to support green initiatives in the office environment. The present article proposes a concept of employee-driven green initiatives that refers to the generation and implementation of green activities originating from a single employee or the joint efforts of two or more employees. Employees can be viewed as green capital and drive organisations to formally adopt and benefit from green practices. Employees can initiate green activities within their own team. This small change can lead to continuous activity and be more widely adopted.

Conclusion

Many organisations increasingly adopt green practices into their business operations. Therefore, scholars and practitioners concerned about environment-related issues should be aware of drivers and mechanisms of the adoption process. We cannot understand the adoption at the firm level without some understanding of the key decision-makers who influence environmental management adoption. Such an understanding might help CEOs or HR managers transform their HR policies and practices into economically and ecologically sustainable ones.

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Table 1. Factor loadings for each independent construct ($n =210$)

Items	Factor			
	1	2	3	4
Environmental attitudes				
1. Our company believes that climate change will be a very serious problem for the country as a whole	0.87			
2. Our company believes that energy savings help reduce global warming	0.86			
3. Energy saving will be advantageous for our company	0.84			
4. Our company believes that climate change will be a problem for other species of plants and animals	0.77			
5. Climate change will be a very serious problem for our company	0.76			
6. The climate change is a serious problem that affects our company	0.70			
Subjective norms from external stakeholders				
1. Government		0.88		
2. Competitors		0.88		
3. Customers		0.80		
Green resource readiness				
1. We have ample discretionary financial resources to support environmentally-friendly-related projects			0.90	
2. Our company has a reasonable amount of resources in reserve to support environmentally-friendly-related projects			0.84	
3. We can always find the manpower to work on environmentally-friendly-related projects			0.84	
Subjective norms from internal stakeholders				
1. Middle managers				0.87
2. Top managers				0.78
3. Employees				0.75
% of variance	36.48	18.01	12.69	7.79

Table 2. Intercorrelations and descriptive statistics (*n* =210)

		1	2	3	4	5	6	7	8	M	SD
1.	Green HR initiatives	(.85)	0.63**	0.50**	0.59**	0.69**	-0.05	0.04	0.11*	3.09	0.57
2.	Environmental-related attitudes		(.91)	0.28**	0.26**	0.26**	-0.02	-0.07	0.04	5.11	1.14
3.	Subjective norms (external)			(.80)	0.50**	0.25**	-0.02	0.00	0.04	2.96	1.04
4.	Subjective norms (internal)				(.89)	0.34**	-0.09	-0.06	0.00	2.60	1.01
5.	Green resource readiness					(.83)	-0.09	0.06	-0.01	3.89	0.92
6.	Year company established							-0.03	-0.05	1982.77	32.28
7.	Organisation size (employee numbers)								0.09	229.88	244.51
8.	Gross revenue									2.33	1.46

**p < .01; * p <.05. Alpha coefficients are depicted in parentheses along the diagonal. Gross revenue dummy codes 1 = up to $5M, 2 = $51M to $10M, 3 = $11M to $50M, 4 = $51M to $200M, 5 = $201M to $500M and 6 = more than $500M.

Table 3. Standard multiple regression of environmental attitudes, subjective norms and resources readiness (IVs) on green HR initiatives (DV)

Variables	Step1 (β)	Step 2 (β)	ΔR^2	Step 1 (VIF)	Step 2 (VIF)
Step 1 (Controlling for)			.01		
Year company established	-.05	.02		1.00	1.02
Company size	-.11	-.02		1.00	1.05
Gross revenue	.04	.01		1.01	1.01
Step 2 (Main effect)			.79***		
Environmental-related attitudes		.28***			1.29
Subjective norms (external)		.18***			1.30
Subjective norms (internal)		.27***			1.41
Green resource readiness		.48***			1.32

Note. ***$p < .001$; The coefficients reported are standardized regression weight. Significance of $\Delta R2$ tested with partial F-tests in regression equations. VIF = Variance Inflation Factor
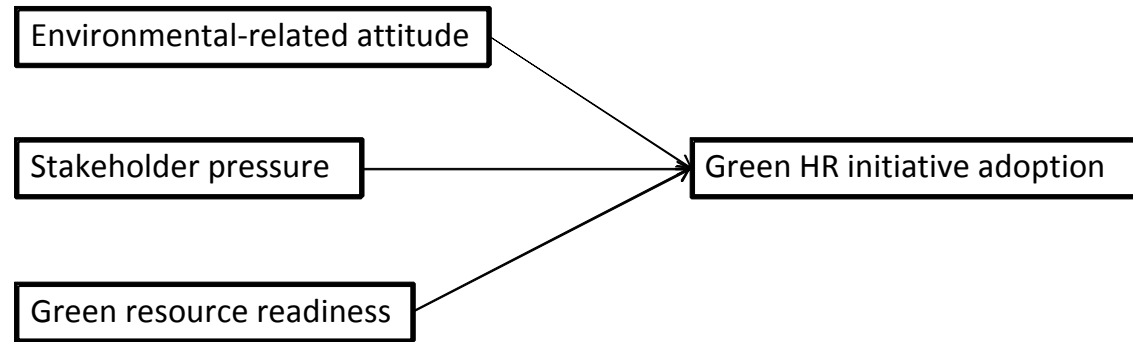
Figure 1: A proposed research model for adoption of Green HR initiatives