Regulating employees' health behaviors: The effects of personal health-related orientations on legitimacy perceptions of organizational programs and policies

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Abstract

The current study investigated individuals' responses and evaluations of worksite health programs and policies. Upper level undergraduates rated the legitimacy of policies and programs exerting low, moderate, or high levels of control over employees' health behaviors. The findings showed that individuals’ nutrition orientations accelerated the decrease in legitimacy ratings that accompanied increased control over employee fitness and health risk appraisal. On the other hand, individuals’ anti-smoking orientations slowed the decrease in legitimacy ratings that accompanied increased control over employee smoking behavior. Implications of the findings for job counselors and human resource personnel are discussed.

Keywords: worksite, health, smoking, fitness, health risk appraisal
1 INTRODUCTION

The growth in corporate health programs and policies constitutes one of the most pronounced trends in business over the past 20 years, and one that is likely to continue, and even accelerate, in the future (Goetzel & Ozminkowski, 2000; Harris, 1994). Programs range from health awareness - and supportive environment - programs to programs aiming at behavioral change, and target areas such as smoking cessation, fitness coaching, health risk awareness, hypertension control, stress management, and even spiritual employee health (e.g., Kirby, 2006; O'Donnell, 1991). Motivations for organizations to implement such programs can include demonstrating concern for employees, improving management-labor relations, and raising employee morale, although it may be impossible to disentangle the intermediate goal of healthier employees from the ultimate goal of cost savings (Mayer, 1991). In cases where programs are being offered on a truly voluntary basis and, more importantly, perceptions of organizational support outweigh the restrictions that are being imposed (Dalsey & Park, 2009), individuals may well enjoy personal benefits provided by these programs rather than feel victimized by them.

Types of health programs and policies at worksite can vary in the extent to which they regulate individual employees' health-related behaviors. When designing and implementing health programs and policies, companies may need to consider factors that may affect individuals' responses to the health programs and policies. It is important to see whether individuals who will be affected by the health programs and policies will regard the programs and policies as the legitimate and appropriate level of organizational control. Considering that undergraduates are about to enter the workforce and apply for jobs in near future, how they will evaluate various health programs and policies can be useful information for companies that consider recruiting college graduates and implementing various health programs and policies. Furthermore, undergraduates' orientations and behaviors regarding maintaining or improving their health, nutrition, and fitness can be a factor that affects how openly they welcome voluntary or mandatory participation in worksite health programs and policies. The current paper focuses on health programs and policies in smoking cessation, fitness, and health risk appraisal and investigates individual health orientation factors that are likely to affect legitimacy perceptions of low, moderate, and high control levels of health programs and policies.

2 LITERATURE REVIEW

2.1 Health promotion in the workplace

The worksite can be an efficient place for providing public health education such as encouraging smokers to engage in cessation techniques (Osinubi, Barbeau, Williams, & Sorensen, 2005). First, there is the advantage of broad reach. With half of the adult population working outside of the home, worksite programs have the potential to reach even those who traditionally lack good connections to healthcare and health education networks (Osinubi et al., 2005). Second, there is the advantage of exposure. The sheer amount of time individuals spend at work makes the worksite a valuable platform for health campaigns. A third and equally important advantage lies in the opportunities for social support, both in the form of colleagues working toward similar health goals together. Employer-based initiatives may provide the little "nudge" that may be needed to move from good intentions to actual healthy behaviors in order to maintain long-term changes (Mayer, 1991).

2.2 Effects on employees

As human resources strategists note, improving the company's bottom line and demonstrating true care for employees are not mutually exclusive goals (Pfeffer, 1998). In the case of corporate health interventions, a concern for employees' well-being may well be an additional motive for program implementation and employees may well appreciate "being treated like family" (Hunicutt, 2001). By the same token, some policies can backfire and cause reactance, reduce organizational attractiveness, and worsen the individuals' and company's well-being at the same time. This is especially true if programs get more involved with health screenings and are perceived as intruding into employees' privacy (Greer & Labig, 1987; Konovski & Cropanzano, 1991; McGregor, 2007; Truxillo, Baier, & Paronto, 2002). The question is: at what point does a caring, big-brother-like company start turning into an Orwellian version of a big brother "watching" and penalizing employees for unhealthy behaviors previously thought private?

Regarding the implementation of employee health-related interventions, more attention needs to be paid to the perceptions of those on the receiving end of various policies formulated today (Dalsey & Park, 2009; Konovski & Cropanzano, 1991; O'Donnell, 2000). At what point are companies' health
regimens perceived as "going too far," and what types of interventions are being perceived as legitimate and/or desirable, if any? Critical voices have pointed to the paternalistic nature of these new forms of corporate control over one's life (Kirby, 2006; Zoller, 2003), and anecdotal evidence for employee concern over a “slippery slope” exists (Jones, 2007; Park, Dalsey, Yun, Guan, & Cherry, 2008). Individuals reported the feeling of having their privacy being whittled away by attempts to change employee behavior after five o'clock, while employers argue that it is up to the individual whether or not they want to work under certain mandates (Jones, 2007). Although certain health issues, such as obesity, are somewhat less amenable to employer control for legal reasons, halting behaviors such as smoking seems to be more widely accepted; there is a move from incentive based, honor-system approaches toward penalty-based approaches to noncompliance and more intrusive testing (McGregor, 2007). For example, one employer started charging employees a biweekly penalty of $30 unless they meet weight, cholesterol and blood-pressure guidelines set forth by the company (Rose, 2008). For some, such intrusive health policies are overstepping sacred boundaries, and some firms endorsing aggressive anti-smoking laws have attracted negative attention with the public both within and outside the organization (Jones, 2007), while others are open to and even supportive of organizational control in these areas; some may even find it desirable to work at a place where healthy behavior is forced upon individuals.

2.3 Legitimacy perceptions of health programs and policies
Legitimacy pertains to the belief that social arrangements, institutions, authorities and their decisions and rules are appropriate, proper and just (Tyler, 2006). Individuals' perception of legitimacy regarding organizational policies and programs can be important for organizations to positively influence their members to participate in the programs and adhere to the policies. Assuming that organizations do not prefer to simply impose a certain type of health behaviors to their members and garner undesirable consequences, organizations may want to know how individuals will think about legitimacy and acceptability level of organizational control when enforcing health-related regulations. For example, when organizations change their smoking regulations from smoking allowed only in designated break rooms to administering a mandatory pre-employment nicotine test, some individuals may consider the new change to be much less legitimate than others may.

2.4 Types of interventions investigated in the current study
This paper focuses on three of the most common interventions: Smoke-free programs, employee fitness programs, and health-risk appraisals (HRAs). All three approaches are well established in organizational practice (Harris, 1994), and remain at the core of current health initiatives. For example, the “Wellness Management” program advocated by corporate healthcare provider Meritain is based on three key initiatives labeled “Nicotine Free,” “Physically Fit,” and “Managed Metrics,” (Meritain Health, 2007). These programs indicate cost-saving potentials and are likely to continue to play a key role in corporate health promotion.

Smoke-free programs: Whether in the form of incentives for quitting smoking or disincentives for being a smoker, programs designed to eliminate or regulate smoking at the worksite do not only have a long standing in business practice, but continue to gain in prevalence (Rose, 2008; Sofian, McAfee, Doctor, & Carson, 1994). After all, cigarette smoking has been identified as the leading preventable cause of illness and premature death in the U.S., increasing the risk for heart disease, stroke, emphysema, and many cancers (CDC, 2005). It is associated with direct costs to businesses reaching $75 billion a year in direct medical costs, $92 billion in lost productivity and $10 billion in exposure to second-hand smoke (CDC, 2005; Meritain, 2008; Osinubi et al., 2005).

Fitness programs: After cigarette smoking, obesity is the second-leading cause of preventable death in the U.S. A study commissioned by the AOA found that the direct healthcare costs related to obesity reached over $102 billion in 1999 (American Obesity Association, 2002). Efforts to reduce obesity and improve fitness are well-reflected in exercise and fitness programs pervasive in U.S. worksites (Collingwood, 1994).

Health-risk appraisals (HRAs): Even if no immediate medical attention is needed, periodic health reports have been found to effectively increase employees’ awareness of health issues, a prerequisite for long-term behavior modification (Dunton, 1991). While awareness and early detection are the basis for prevention and effective treatment of most illnesses, health-risk-appraisals are one of the most controversial elements of corporate health policies, especially if they go beyond self-report data, as in
blood chemistry analyses (Konovski & Cropanzano, 1991; McGregor, 2007; Wallston & Armstrong, 1994).

2.5 Levels of control exerted via health interventions

Canby (2007) describes the range of incentives and disincentives that may be used to encourage compliance with corporate health programs. Rewards may range from public recognition, gift certificates and gym memberships to days off, cash payments and reduced medical premiums. Penalties for noncompliance, may include increased health insurance premiums, paycheck reductions, and even termination of the employee. Some employers have elaborate calculation procedures for insurance co-pays and deductibles in place, based on employees’ BMI, blood pressure, and even cholesterol levels (McGregor, 2007).

The current study grouped various health initiatives into three levels of “control” based on their intrusiveness into employees’ life. Interventions labeled as low in control comprised those programs that are implemented on a voluntary basis, are designed to raise awareness and encourage practices that do not infringe on behaviors off the job. Examples are the limitation of smoking to designated areas, encouragement to join the corporate fitness club membership program, and voluntary sign-ups for health screenings. Interventions labeled as moderate in control are those that regulate employees’ behaviors on and beyond the job, such as hiring only nonsmokers (while encouraging smoking cessation and offering support to current employees who smoke), ordering mandatory fitness regimens, or creating annual health files for employees. Lastly, interventions labeled as high in control refer to drastic measures such as terminating employment of smokers for their failure to quit smoking, or denying medical benefits to high-risk individuals who fail to improve their personal fitness or reduce health risk indicators.

2.6 Research question

Among a host of factors that can affect individuals’ legitimacy ratings of various types of health programs and policies, the current study focuses on individuals’ orientations related to health and fitness. Individuals differ in their health and fitness related attitudes, habits, and perceived health-related self-efficacy. These individual differences are likely to explain some variation in perceived legitimacy and desirability of corporate health policies and programs. A match between a job applicant’s personal values and a company’s values has been shown to positively affect the job applicant’s evaluation of the organization (Bretz, Ash, & Dreher, 1989; Chatman, 1991; Dalsey & Park, 2009). Similarly, a match between individuals’ health-related orientations and specific organizational health policies that relate to these orientations is likely to increase perceptions of legitimacy of such policies. Specifically, compared to smokers and individuals with favorable attitudes about smoking, non-smokers and individuals with anti-smoking attitudes may be more likely to welcome severe anti-smoking policies. Dalsey and Park (2009) showed that, compared to smokers, non-smokers indicated higher attraction for an organization that encouraged employees to quit smoking. Similarly, individuals with greater concern of and care for their fitness, nutrition, and wellness can be more likely to have stronger legitimacy perceptions about higher levels of employee-fitness and health risk appraisal interventions. The research question examined in this study is: How do personal fitness, nutrition, anti-smoking, and wellness orientations affect the perceptions of legitimacy of employer control of various health behaviors?

3 METHOD

3.1 Participants

Participants (n = 115, age M = 21.90, SD = 2.79, 65.3 % women) were recruited from upper division undergraduate classes at a large Midwestern university in the U.S. The sample consisted of 84.3% Whites/Caucasians, 7.0% African Americans, 3.5% Asians, and 5.2% who indicated other ethnicities. The majority (76.7%) was in their senior year, and 67.0 % indicated their plans to enter the workforce within the next year. This student sample thus possessed two desirable properties for the purpose of the current investigation: While these individuals are seriously thinking about potential workplaces and their characteristics, they are still less concerned with an immediate need for employment. It is likely that their personal orientations and opinions towards corporate health policies are relatively free from practical necessity considerations that may enter the picture for long-term unemployed job seekers, and from influences through previous corporate health promotions.

Based on considerations outlined above, but also as an induction for respondents to seriously think about their working future, we assessed what industries, job types, and geographical regions were sought. Answers reflected a high popularity for marketing-related jobs (26.0%), the public relations
industry (23.4%), health communication (11.7%), the media and entertainment industry (8.1% and 9.0%), and legal/financial/other services (7.4% each). Of the participants, 44% wished to stay in the Midwest for their work, while 37.2% felt drawn to the West coast (19.6.2%), the East coast (17.6%), or the South (8.8%).

3.2 Measures
All measurement items were constructed for this study, using a 7-point Likert style response format (1 = strongly disagree, 7 = strongly agree). Appendix shows all the measurement items. Table 1 shows the reliabilities, correlations, means, and standard deviations.

Table 1: Reliabilities, Correlations, Means, and Standard Deviations

<table>
<thead>
<tr>
<th>Personal health-related orientations</th>
<th>Legitimacy ratings of interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fitness</td>
<td>Nutrition</td>
</tr>
<tr>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Fitness</td>
<td>(.87)</td>
</tr>
<tr>
<td>Nutrition</td>
<td>.53**</td>
</tr>
<tr>
<td>Anti-smoking</td>
<td>.13</td>
</tr>
<tr>
<td>Wellness</td>
<td>.22**</td>
</tr>
<tr>
<td>Psc low</td>
<td>.22**</td>
</tr>
<tr>
<td>Psc mod</td>
<td>.13</td>
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<tr>
<td>Psc high</td>
<td>.27**</td>
</tr>
<tr>
<td>Pfc low</td>
<td>.19</td>
</tr>
<tr>
<td>Pfc mod</td>
<td>.17</td>
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<td>Pfc high</td>
<td>.19</td>
</tr>
<tr>
<td>Phc low</td>
<td>.17</td>
</tr>
<tr>
<td>Phc mod</td>
<td>.06</td>
</tr>
<tr>
<td>Phc high</td>
<td>-</td>
</tr>
</tbody>
</table>

* p < .05, **p < .01. Reliabilities are reported on the diagonal.
1 = strongly disagree; 7 = strongly agree
Fitness: personal orientation placed on fitness, assessed with 3 items
Nutrition: personal orientation placed on healthy nutrition, assessed with 3 items
Anti-Smoking: anti-smoking-related orientation, assessed with 5 items
Wellness: wellness awareness orientation, assessed with 7 items
Psclow: legitimacy rating of low employer control of smoking behaviors, assessed with 7 items
Pscmod: legitimacy rating of moderate employer control of smoking behaviors, assessed with 5 items
Pschigh: legitimacy rating of high employer control of smoking behaviors, assessed with 5 items
Pfclow: legitimacy rating of low employer control of employee fitness, assessed with 6 items
Pfcmod: legitimacy rating of moderate employer control of employee fitness, assessed with 5 items
Pfchigh: legitimacy rating of high employer control of employee fitness, assessed with 5 items
Phclow: legitimacy rating of low employer control of health risk appraisals, assessed with 5 items
Phcmod: legitimacy rating of moderate employer control of health risk appraisals, assessed with 9 items
Phchigh: legitimacy rating of high employer control of health risk appraisals, assessed with 7 items

3.3 Personal health-related orientations
For this study, four categories of personal health related orientations were expected to potentially influence perceptions of policies that related to them. These orientations were assessed through topic-related attitudes, behaviors, and values. **Fitness orientation** describes personal value placed on fitness, getting or staying in shape, and exercise habits and was assessed using three items (α = .87) such as “I exercise on a regular basis.” **Nutrition orientation** was measured with three items (α = .72) such as "I
maintain a well-balanced diet” and assessed respondents’ views of the importance of healthy nutrition. Anti-smoking orientation refers to an overall tendency to be unfavorable about smoking, rather than a simple smoker-versus-nonsmoker dichotomy. It was assessed with a continuous measure that integrated four items (α = .83) on smoking behaviors and attitudes about being around smokers, such as “I prefer my environment to be smoke-free.” Finally, seven items (α = .82) assessed wellness orientation, or respondents’ general health awareness and behaviors regarding regular medical check-ups and taking preventive measures (e.g., “I am interested in ways of preventing illness.”). Confirmatory Factor Analysis (CFA) showed that four-factor model (four types of orientations) fit the data well (CFI [Comparative Fit Index] = .90, IFI [Incremental Fit Index] = .90) and was better than one-factor model (CFI = .73, IFI = .73), Δχ²(6) = 269.78, p < .001. 

3.4 Legitimacy of interventions.

Health programs and policies were grouped into three levels varying in severity for the three general areas of interest, smoke-free programs, employee fitness programs, and health-risk-appraisals. Legitimacy ratings were assessed by individuals indicating the extent to which they agreed or disagreed with each program and/or policy.

For smoke-free interventions, CFA showed that three-factor models (low, moderate, and high control) fit the data well (CFI = .95, IFI = .95) and was better than one-factor model (CFI = .87, IFI = .87), Δχ²(3) = 305.87, p < .001. Individuals’ legitimacy rating of low control of smoking behaviors (Psclow) was assessed with seven items (α = .81) such as “An employer has the right to limit smoking to designated areas.” Legitimacy ratings of moderate control of smoking behaviors (Pscmod) were assessed with five items (α = .82) such as “A company may use mandatory pre-employment nicotine testing.” Legitimacy ratings of high control of smoking behaviors (Pschigh) were assessed with five items (α = .91) such as “One year after making a company smoke-free, an employer has the right to fine smokers that fail to quit smoking.”

For employee fitness interventions, CFA showed that the three-factor model fit the data well (CFI = .91, IFI = .91) and was better than one-factor model (CFI = .83, IFI = .83), Δχ²(3) = 455.04, p < .001. Individuals’ legitimacy ratings of low control of employee fitness were assessed with six items (α = .88) such as “It is okay for the company to encourage regular exercise by inviting employees to a company-wide fitness-challenge event” (Pfclow). Moderate control was assessed with five items (α = .83) such as “Depending on the employee’s fitness level, a mandatory meeting with an assigned fitness coach may be imposed” (Pfcmid). High control was assessed with eight items (α = .91) such as “A company has the right to charge higher out-of-pocket health insurance contributions of employees who fail to improve their fitness scores substantially after one year” (Pfchigh).

Finally, for health risk appraisal interventions, CFA showed a three-factor model to be a better fit (CFI = .95, IFI = .95) than one-factor model (CFI = .87, IFI = .87), Δχ²(3) = 897.53, p < .001. One example of the five (α = .91) items measuring individuals’ legitimacy rating of low control over employee-health-risk appraisals (Phclow) was “A voluntary sign-up opportunity for complementary physical check-ups is a valuable service to employees.” Nine items (α = .92) measured moderate control over employee-health-risk appraisals (Phcmid) (e.g., “An employer has the right to create annual health reports on all employees”). Seven items (α = .95) assessed high control over employee-health-risk appraisals (Phchigh) (e.g., “It is okay for an employer to prescribe annual blood tests to check for cholesterol levels.”).

4 RESULTS

4.1 Overview

The data were examined with Hierarchical Linear Modeling (HLM) (Raudenbush & Bryk, 2002) because the research design involved repeated measures, and HLM allows separating the variance in the dependent variables (i.e., legitimacy ratings) into within-individual variance and between-individual variance. Control types (low, moderate, and high) was used to explain within-individual level variance in the dependent variables. For between-individual level variance in the dependent variable, individual health orientation variables (fitness, nutrition, anti-smoking, and wellness orientations) was used to explain the variance in the extent to which individuals differ in how they respond to each of the three control types for each health program. That is, HLM allowed for partitioning of variance in legitimacy ratings into segments accounted for by the three types of control (level-1 predictor) and stable individual differences (level-2 predictors). Table 2 shows HLM results.
Table 2: Multilevel analyses results

<table>
<thead>
<tr>
<th>Model</th>
<th>Coefficient</th>
<th>SE</th>
<th>t</th>
<th>df</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smoke-Free Programs&lt;sup&gt;1&lt;/sup&gt;</td>
<td>Intercept 2, γ&lt;sub&gt;00&lt;/sub&gt;</td>
<td>5.98</td>
<td>0.11</td>
<td>52.77</td>
<td>339</td>
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<td>For control slope, β&lt;sub&gt;1&lt;/sub&gt;</td>
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<td>−12.19</td>
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<td></td>
<td>Nutrition, γ&lt;sub&gt;12&lt;/sub&gt;</td>
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<td>−0.61</td>
<td>110</td>
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<tr>
<td></td>
<td>Anti-smoking, γ&lt;sub&gt;13&lt;/sub&gt;</td>
<td>0.26</td>
<td>0.08</td>
<td>3.06</td>
<td>110</td>
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<tr>
<td></td>
<td>Wellness, γ&lt;sub&gt;14&lt;/sub&gt;</td>
<td>0.06</td>
<td>0.14</td>
<td>0.44</td>
<td>110</td>
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<tr>
<td>Fitness Programs&lt;sup&gt;2&lt;/sup&gt;</td>
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<tr>
<td></td>
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<td>−1.09</td>
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<tr>
<td></td>
<td>Wellness, γ&lt;sub&gt;14&lt;/sub&gt;</td>
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<td>0.10</td>
<td>0.84</td>
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<tr>
<td>Health Risk Appraisals&lt;sup&gt;3&lt;/sup&gt;</td>
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<td>0.11</td>
<td>47.06</td>
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<tr>
<td>For control slope, β&lt;sub&gt;1&lt;/sub&gt;</td>
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<td>0.08</td>
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<td>Nutrition, γ&lt;sub&gt;12&lt;/sub&gt;</td>
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<td>−3.07</td>
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<td>Anti-smoking, γ&lt;sub&gt;13&lt;/sub&gt;</td>
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<td>−0.60</td>
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<tr>
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<td>Wellness, γ&lt;sub&gt;14&lt;/sub&gt;</td>
<td>0.19</td>
<td>0.11</td>
<td>1.74</td>
<td>110</td>
</tr>
</tbody>
</table>

Note. Equations illustrating the model with grand mean centered level-2 predictors.

<sup>1</sup> legitimacy of smoke-free programs: \( s_{ij} = \beta_0 + \beta_1j(\text{Control Type}) + r_{ij} \)

<sup>2</sup> legitimacy of fitness programs: \( s_{ij} = \beta_0 + \beta_1j(\text{Control Type}) + r_{ij} \)

<sup>3</sup> legitimacy of health risk appraisal programs: \( s_{ij} = \beta_0 + \beta_1j(\text{Control Type}) + r_{ij} \)

<sup>4</sup> This intercept was treated as fixed because the variance in the intercept 1 was not significant.
4.2 Smoke-Free Programs

For individuals’ legitimacy ratings of smoke-free programs, control type was a significant predictor of the within-individual variance, coefficient = –1.42, SE = 0.09, t = –15.34, p < .001, indicating that legitimacy ratings decreased as the control type moved from low to high. The control type explained 61.50% of the within-individual variance. To clarify the effect of control type, paired t-tests were conducted. Low control received higher legitimacy rating than moderate control, 𝑡 (114) = 10.56, 𝑝 < .001, 𝜂^2 = .49. Moderate control received higher legitimacy ratings than high control, 𝑡 (114) = 5.33, 𝑝 < .001, 𝜂^2 = .20. Means are reported in Table 1.

The analysis showed that the level-1 intercept (i.e., individuals’ legitimacy ratings averaged across the three control types) did not vary significantly across individuals, variance = 0.48, χ^2 (114) = 114.91, 𝑝 = .46, indicating no need for level-2 predictors. On the other hand, the level-1 slope (i.e., individual changes from low control to high) had a significant amount of variance across individuals, variance = 0.78, χ^2 (114) = 364.71, 𝑝 < .001, indicating that the extent to which legitimacy rating decreased from low control to high was greater for some individuals than for others.

As shown in Table 2, individual health orientation variables (level-2 predictors) were included in the analysis to explain between-individual variance in the extent to which legitimacy ratings changed from low control to high (i.e., the variance in the level-1 slope). Including these level-2 predictors explained 12.29% of the variance in the level-1 slope. Among the predictors, only anti-smoking orientation was a significant and positive predictor, whereas fitness, nutrition, and wellness orientations were not significant. This finding indicated that as individuals had higher anti-smoking orientations, the slope became less negative; individuals with higher anti-smoking orientations showed less decrease in their legitimacy ratings from low control to high. To put it differently, legitimacy rating decrease from low control to high was more pronounced among those with lower anti-smoking orientations.

4.3 Fitness programs

For individuals’ legitimacy ratings of fitness program, the control type was a significant predictor of the within-individual variance, coefficient = –1.30, SE = 0.07, t = –18.97, p < .001, indicating that legitimacy ratings decreased as the control type moved from low to high. The control type explained 80.44% of the within-individual variance. To clarify the effect of control type, paired t-tests were conducted. Low control received higher legitimacy rating than moderate control, 𝑡 (114) = 13.19, 𝑝 < .001, 𝜂^2 = .60. Moderate control received higher legitimacy rating than high control, 𝑡 (114) = 12.43, 𝑝 < .001, 𝜂^2 = .58. The analysis showed that the level-1 intercept (i.e., individuals’ legitimacy ratings averaged across the three control types) varied significantly across individuals, variance = 1.33, χ^2 (114) = 448.32, 𝑝 < .001, indicating the need for level-2 predictors to explain the variance in the level-1 intercept. The level-1 slope (i.e., individual changes from low control to high) had a significant amount of variance across individuals, variance = 0.30, χ^2 (114) = 255.15, 𝑝 < .001, indicating that the extent to which legitimacy rating decreased from low control to high was greater for some individuals than for others.

As shown in Table 2, individual health orientation variables (level-2 predictors) were included in the analysis to explain between-individual variance in the individual average legitimacy ratings (i.e., the variance in the level-1 intercept) and also in the extent to which legitimacy ratings changed from low control to high (i.e., the variance in the level-1 slope). Including these level-2 predictors explained 14.29% of the variance in the level-1 intercept and 8.31% of the variance in the level-1 slope. Among the predictors, only anti-smoking orientation was a significant and positive predictor of the level-1 intercept, whereas fitness, nutrition, and wellness orientations were not significant. This finding indicated that the higher an individual’s anti-smoking orientation, the higher his or her average legitimacy ratings across the three types of control. Among the predictors, only nutrition was a significant and negative predictor of the level-1 slope. This finding indicated that the higher an individual’s nutrition orientation, the more negative the slope became; individuals with higher nutrition orientations showed greater decrease in their legitimacy ratings from low control to high. Put differently, the decrease in perceived legitimacy from low control to high was less pronounced among those with lower nutrition orientations.

4.4 Health risk appraisal programs

Finally, for individuals’ perceived legitimacy scores of health risk appraisal program, the control type was a significant predictor of the within-individual variance, coefficient = –1.47, SE = 0.08, t = –19.17, p < .001, again indicating that legitimacy ratings decreased as the control type moved from low control to high. The control type explained 78.27% of the within-individual variance. To clarify the effect of control type, paired t-tests were conducted. Low control received higher legitimacy rating than moderate control, 𝑡 (114) = 15.98, 𝑝 < .001, 𝜂^2 = .69. Moderate control received higher legitimacy
ratings than high control, $t(114) = 10.44$, $p < .001$, $\eta^2 = .49$. The analysis showed that the level-1 intercept (i.e., individuals’ legitimacy ratings averaged across the three control types) varied significantly across individuals, variance $= 1.02$, $\chi^2(114) = 314.18$, $p < .001$, indicating the need for level-2 predictors to explain the variance in the level-1 intercept. The level-1 slope (i.e., individual changes in legitimacy ratings from low control to high) had a significant amount of variance across individuals, variance $= 0.33$, $\chi^2(114) = 223.36$, $p < .001$, indicating that the extent to which legitimacy rating decreased from low control to high was greater for some individuals than for others.

As shown in Table 2, individual health orientation variables (level-2 predictors) were included in the analysis to explain between-individual variance in the individual average legitimacy ratings (i.e., the variance in the level-1 intercept) and also in the extent to which legitimacy ratings changed from low control to high (i.e., the variance in the level-1 slope). Including these level-2 predictors explained 11.65% of the variance in the level-1 intercept and 11.90% of the variance in the level-1 slope. Among the predictors, only nutrition orientation was a significant and positive predictor of the level-1 intercept, whereas fitness, anti-smoking, and wellness orientations were not significant. This finding indicated that as individuals had higher nutrition orientations, their average legitimacy ratings across the three types of control were higher. Among the predictors, only nutrition orientation was a significant and negative predictor of the level-1 slope. This finding indicated that the higher individuals’ nutrition orientations, the more negative the slope became; individuals with higher nutrition orientations showed greater decrease in their legitimacy ratings from low control to high. To put it differently, the decrease in perceived legitimacy from low control to high was less pronounced among those with lower nutrition orientations.

5 DISCUSSION

This study addressed how future employees would feel about different levels of workplace health control in smoking, employee fitness, and health risk assessments. As employers are increasing to regulate these three main areas of health, the economic benefits of corporate health initiatives will need to show real improvements in individuals’ health and fitness, and, at the same time, should be considered as a valuable service by employees. Otherwise, concerns can be raised about a gradual undermining of employees’ privacy and the subtle perpetuation of managerialist ideologies (“get fit or get fired”) (Kirby, 2006; Park et al., 2008; Zoller, 2003). Given the powerful influence that the implementation of health programs can have on employees’ perceptions (Zoller, 2003), this study examined perceptions of an undergraduate sample still relatively untouched by corporate health promotion.

Concerning whether and how perceived legitimacy of health policies and programs would change with increasing levels of control exerted by the employer, the current findings showed that as control increases, ratings of legitimacy decreased. There is concern for the privacy of behaviors “off the clock.” Several of the respondents in this study indicated rather strong objections to certain types of control, and even added spontaneous and unsolicited comments such as “None of their business!” to measurement items such as “It is okay for the company to change employees’ general eating behaviors.” The significant decrease in perceived legitimacy resulting from increases in control level/type illustrates that even among this young, generally health conscious sample, concerns about privacy still take precedence over the potential personal health benefits that may result from being pressured into living healthy. Factors such as involuntariness, severe consequences of noncompliance, and extension of control beyond the workplace and after business hours have previously been shown to enhance the likelihood of reactance and decreased morale among employees in reaction to workplace health promotion (Greer & Labig, 1987; Truxillo et al., 2002; Zoller, 2004).

When examining how personal health orientations, i.e. those related to fitness, nutrition, smoking, and wellness awareness, would affect the perceptions of legitimacy of employer control of health behaviors related to these areas, a few interesting findings emerged. For smoke-free programs, overall legitimacy ratings did not vary across individuals, while the slope of the decrease with increasing control did vary depending on individuals’ anti-smoking orientations. Individuals with stronger anti-smoking orientations still perceived high control as less legitimate than low control, but this reduction was significantly less pronounced than for individuals less opposed to smoking. Other health-related orientations did not moderate the decrease, suggesting that to a certain degree these legitimacy perceptions are not global, but policy-specific.

For employee fitness programs, not only the slope of the decrease but also perceived overall legitimacy across the control levels/types varied significantly across individuals, which indicates an twofold need to understand moderating factors. Again, only a directly “relevant” personal orientation, in this case nutrition orientation, was a significant predictor. Interestingly, the pattern here was different from the one observed for smoke-free programs: In the case of fitness programs, those
individuals with lower nutrition orientations perceived a slower decrease of legitimacy of fitness control. One might speculate that this finding reflects a perceived value in being regulated on this issue. It is possible that respondents who indicated low nutrition orientations perceived value in being “forced into shape,” but this speculation certainly demands further study.

Lastly, overall legitimacy of health risk appraisals across the three levels varied across individuals, as did the slopes of the observed decrease. Analysis of the personal health orientations again revealed nutrition orientation as a significant moderator of the decrease, in such a way that for individuals valuing healthy nutrition more highly, legitimacy ratings decreased more steeply than for less involved individuals. As with fitness programs, a reactance-based explanation may fit these findings: Individuals who are more highly aware of how to take care of themselves may perceive the regulation through the workplace as less necessary and more patronizing than individuals with lower awareness. Surprisingly, this finding did not hold for the most closely related health-related orientation; namely, wellness orientation which was based on the perceived value of physical check-ups and general health awareness. It could be noted, however, that wellness orientation did produce a near-significant (\( p = .085 \)) effect on the slope of decreased legitimacy. It is possible that among young people as in the current sample, healthy nutrition is a stronger indicator of overall health-awareness than the adherence to check-up regimens (which tend to become more relevant to middle-aged and older individuals).

### 5.1 Implications of the findings

The current findings provide implications that governments, health associations, and top managements may need to consider before implementing worksite programs and policies aiming at employee health. Desirable outcomes of worksite programs and policies can be more likely to result from checking the legitimacy perceptions of people who will be affected by the programs and understanding their health-related orientations. What the governments, health associations, and/or top managements consider legitimate control of employee health behaviors may or may not be perceived legitimate by the current and prospective employees. Park et al. (2008) interviewed employees of companies that implemented a legally legitimate and highly severe smoke-free program (e.g., firing smokers). Park et al.'s findings implied that such policies can make employees question the true purpose of the policy and can negatively affect the organizational culture. On the other hand, people can change their perceptions of legitimacy. As time goes by, general shifts in perceptions are likely to occur. Cropanzano and Konovski (1995), for example, noted drastic change in perceived legitimacy of employee drug testing between the 1960's and 1990's. When corporate control strategies are introduced gradually, communicated skillfully, and accompanied by significant support, they may raise individuals’ tolerance for control substantially, making repeated assessment of employee perceptions over time a valuable basis for the assessment of such trends in the broader area of corporate health policies.

Because the current study used a sample of undergraduates in the United States, the implications of the findings may be limited within the national boundary. Countries differ in the public and private coverage of health insurances and governmental regulations of health-related programs and policies at worksites. A recent study by Klautke, Park, Lee, Hong, and Kang (2010) replicated the current study with samples of Korean undergraduates and working adults. For one thing, Klautke et al. (2010) examined only two of the three types of health-related programs, leaving out health risk appraisal programs. Because health risk appraisal programs were mostly under the control of governmental regulations, little variations existed in employer control levels. Nevertheless, some differences as well as similarities existed between the current study and Klautke et al. (2010) in how personal health-related orientations affected people’s legitimacy perceptions of smoke-free programs and employee fitness programs. For example, anti-smoking and nutrition orientations were important factors affecting people’s legitimacy perceptions in both Korea and the United States. However, the effect of nutrition orientation on legitimacy perceptions of fitness programs was different between Korea and the United States. Unlike Americans in the current study who showed that the decrease in perceived legitimacy from low control to high was less pronounced among those with lower nutrition orientations, Koreans in Klautke et al (2010) showed that legitimacy decreasing from low control to high was less pronounced among those with higher nutrition orientation. Thus, future studies may need to explore why and how nations can differ in the way personal health-related orientations affect people’s legitimacy perceptions of worksite health programs.

### 5.2 Limitations of current study and suggestions for further research

Only a very small set of factors moderating the perception of workplace health promotion was examined in this study. Past research has shown that several elements of procedural justice can strongly influence employees’ reactions (including job satisfaction, trust in management, and performance) to
management actions such as drug testing (Colquitt, 2001; Cropanzano, Prehar, & Chen, 2002; Dolan, Edlin, Tsuchiya, & Wailoo, 2007). Along similar lines, the opportunity to contribute to the shaping of the policy as well as consistency in implementation across all levels of the organization have been shown to not only enhance ownership of health policies, but also influence healthy behaviors directly (Kouvonen et al., 2007). Thus, future studies focusing on varying levels of organizational support and procedural justice features may provide additional insights to assumptions that individuals make regarding health policies (e.g., how the policies came to be, how they were communicated, etc.).

Additional factors can be expected to play a role. The complexity of the issue is illustrated well by anecdotal evidence indicating that policies banning smoking from the workplace led to fewer disciplinary and employee moral problems than those that attempt to regulate, rather than eliminate, smoking at the worksite (Sofian et al., 1994). However, the current findings and previous ones (Dalsey & Park, 2009; Dalsey et al., 2007; Greer & Labig, 1987) show that severity of policies decreased outcomes such as organizational attractiveness and perceived legitimacy among job candidates and current employees.

The industry under consideration is also likely to play a role. In Zoller’s (2003) ethnographic case study physical workers at an automobile manufacturing plant showed considerable buy-in into the corporate ideology that “only a healthy and fit employee is a good employee.” It is possible that sedentary office workers would show more resistance to such a norm - since their immediate ability to perform their jobs is not impacted as directly by a lack of physical fitness.

6 CONCLUSION

The rapid growth in health care expenses and the cost saving potential of workplace health interventions are going to ensure that issues such as “personal” fitness are no longer just personal. In this context, understanding not only the return of investment, or even the best practices to generate employee buy-in, will only give a very limited picture of this issue of workplace health promotion. For practitioners (e.g., Goetzel & Ozminkowski, 2000; Hunnicutt, 2001) and critical observers of corporate health programming alike (e.g. Kirby, 2006, Zoller, 2003), empirically assessing perceptions of the recipients of the interventions will be essential.

APPENDIX: MEASUREMENT ITEMS

I. Personal Health-Related Orientations (1 = strongly disagree, 7 = strongly agree)

Fitness
1. I exercise on a regular basis.
2. I consider myself to be in “good shape.”
3. I plan on being in good shape throughout my life.

Nutrition
1. I maintain a well-balanced diet.
2. I eat fast-food regularly.
3. I eat several servings of fruits and/or vegetables almost every day.

Anti-smoking
1. I smoke cigarettes a lot.
2. I am a steadfast non-smoker.
3. I prefer my environment to be smoke-free.
4. Smoking is more serious a threat than most people seem to think.
5. (As a nonsmoker) I cannot see myself smoking ever./ (As a smoker) I am motivated to quit.

Wellness
1. Health is an important topic for me.
2. I consider myself well-educated on health-matters in general.
3. I get physical check-ups in approximately the recommended intervals.
4. Overall, my lifestyle is healthier than that of most people.
5. I am interested in ways of preventing illness.
6. For the most part, people can control their health through lifestyle choices.
7. Many common diseases could be prevented through proper lifestyle choices.
II. Legitimacy of Interventions (1 = strongly disagree, 7 = strongly agree)

Low control of smoke-free programs (Psclow)
1. An employer has the right to limit smoking to designated areas.
2. An employer has the right to limit smoking to personal breaks.
3. A policy ensuring that non-smokers will not be exposed to any smoke at work is fair.
4. An employer has the right to tell employees not to smoke on the job.
5. An employer has the right to keep company premises smoke-free.
6. An employer can prohibit smoking during work hours.
7. An employer can prohibit smoking anywhere at the worksite.

Moderate control of smoke-free programs (Pscmod)
8. An employer has the right to enforce a smoke-free workforce.
9. An employer has the right to only hire non-smokers.
10. After a one-year transition period, using (announced) nicotine testing and prescribing counseling for positively tested employees is fair.
11. A company may use mandatory pre-employment nicotine testing.
12. Mandatory nicotine testing can be a part of employment screenings.

High control of smoke-free programs (Pschigh)
13. An employer has the right to prohibit employees’ “after work” cigarette.
14. One year after making a company smoke-free, an employer has the right to fire smokers that fail to quit smoking.
15. One year after making a company smoke-free, an employer has the right to administer random nicotine testing to make sure employees follow the new non-smoking policy.
16. Individuals who fail the random nicotine tests may be charged penalties up to $50 out of their weekly paychecks.
17. Individuals who fail the random nicotine tests may be required to buy their own health insurance.

Low control of employee-fitness programs (Pfclow)
1. Depending on the employee’s level of physical fitness, the company can suggest a complementary meeting with a fitness coach.
2. It is ok for the company to discourage high-fat meals, e.g. through elimination of fatty cafeteria foods, informational posters and materials.
3. The company may suggest a complementary meeting with a nutrition specialist.
4. It is ok for the company to discourage junk-food snacks, e.g. by eliminating vending machines and providing informational materials on healthy alternatives.
5. It is ok for the company to encourage regular exercise inviting employees to a company-wide fitness-challenge event.
6. It is appropriate for a company to thoroughly advertise their fitness facilities/discounted membership program for the local gym.

Moderate control of employee-fitness programs (Pfcmod)
7. It is ok for the company to prescribe exercise regimens to employees, as long as valid medical excuses will be considered.
8. Depending on the employee’s fitness level, a mandatory meeting with an assigned fitness coach may be imposed.
9. “Weight-loss-competitions” between departments (where no individual’s weight is disclosed publicly) are a fun way to encourage healthy life changes.
10. Depending on the employee’s fitness level, a mandatory meeting with an assigned nutrition specialist may be imposed.
11. A “good driver’s discount” with health insurance (i.e., lower out-of-pocket cost for employees meeting certain fitness standards) is a fair approach to encouraging healthy lifestyles.

High control of employee-fitness programs (Pfchigh)
12. It is okay for the company to change employees’ general eating behaviors.
13. It is fair to enforce a company-imposed exercise regimen by charging employees who are “slacking” higher co-pays and deductibles on their health insurance.
14. It is okay for the company to require employees’ participation in a company-wide fitness-challenge event.
15. A company has the right to charge higher out-of-pocket health insurance contributions of employees that fail to improve their fitness scores substantially after one year.
16. A company may impose exercise regimens for all employees without considering any medical excuses.
17. An employee failing to meet fitness goals prescribed by a trained coach may be required to buy his/her own health insurance.
18. An employee refusing to comply with company-fitness regimens after a one-year grace period can be fired.
19. An employee failing to improve any fitness scores despite significant support offered by the company can be fired after a three year grace period.

Low control of health risk appraisal programs (Phclow)
1. A company-wide “Health-Risk Awareness Week,” including speakers, information brochures and posters on major risk factors, is a great way to improve employee health awareness.
2. A voluntary sign-up opportunity for complementary physical check ups is a valuable service to employees.
3. A voluntary competition such as "Get your Department’s Body-Mass-Index in Shape" is a fun way to raise awareness on the importance of maintaining a healthy weight.
4. Placing scales for personal weight-control throughout the company (e.g. in break rooms, changing rooms) is a useful service.
5. It is appropriate for an employer to encourage participation in voluntary, company-sponsored programs on lifestyles and habits (e.g., smoking, drinking, exercising).
6. It is appropriate for an employer to encourage participation in voluntary, company-sponsored programs on health care practices (e.g., importance of regular pap tests/breast-self exams, skin exams for cancer detection).

Moderate control of health risk appraisal programs (Phcmmod)
7. Having all employees fill out self-reported checklists of major health indicators (e.g., height, weight, blood pressure, level of physical activity) once a year is an appropriate way for an employer to keep health-awareness high.
8. Having a health coach assess personal and family medical history (e.g., heart problems, diabetes, suicide, cancer) is an appropriate way for an employer to encourage employees to live healthier lives.
9. A personalized “Health-Risk-Report” listing the individual’s top 5 causes of death in the order of likelihood for the individual is an appropriate way for an employer to encourage lifestyle changes.
10. Having a health coach calculate employees' “risk age” (which may be higher than the actual age, if key health indicators are bad) is appropriate in order to motivate employees to improve on these indicators.

High control of health risk appraisal programs (Phchigh)
16. High-risk employees can be required to work with a provided health coach to improve their health scores (e.g., BMI, blood pressure, etc.).
17. High-risk employees who refuse to work with a health coach provided by the company can be charged a monthly penalty for noncompliance.
18. It is okay for a an employer to prescribe annual blood tests to check cholesterol levels.
19. If an employee’s cholesterol levels are high, the company can make him/her pay a penalty of $5 per period exceeded allowance—penalties up to $ 30/paycheck.
20. If an employee’s cholesterol levels are high, the company can make him/her buy their own health insurance.
21. High-risk employees who boycott programs and support offered by the company can be fired after a grace period of 3 years.

22. High-risk employees who continue to increase their “risk age” can be fired after a grace period of 3 years.

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Test of a causal Human Resource Management-Performance Linkage Model: Evidence from the Greek manufacturing sector

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Abstract

Although a number of studies have recognized the relationship between Human Resource Management (HRM) policies and organisational performance, the mechanisms through which HRM policies lead to organisational performance remain still unexplored. The purpose of this paper is to investigate the pathways leading from HRM policies to organisational performance by using structural equation modelling. Specifically, this analytical tool has been used to test a research framework that is constituted by a set of causal relationships between organisational and other contingencies, business strategies, HRM policies, HRM outcomes, and organisational performance. Employing data from organisations operating in the Greek manufacturing sector, results indicate that the impact of HRM policies on organisational performance is mediated through the HRM outputs of skills, attitudes and behaviour, and moderated by business strategies, organisational context and other contingencies. Thus, the paper not only supports that HRM policies have a positive impact on organisational performance but also explains the mechanisms through which HRM policies improve organisational performance.

Keywords: HRM policies, business strategies, HRM outputs, mediating model, organisational context, Greek manufacturing
1 INTRODUCTION

In today’s global and highly competitive environment organisations are turning to the human resource management (HRM) function to facilitate the development of a competitive strategy (Ulrich, 1997) that will help the development of the organisation’s core competencies (Levine, 1995), which in turn will advance performance (Jackson & Schuler, 1995; Shih, Chiang, & Hsu, 2006). The ‘universalistic’, ‘contingency’, ‘configuration’ (Deler & Doty, 1996) and the ‘fully integrated’ (Hall & Torrington, 1998) perspectives are identified among existing theories that investigate the relationship between HRM and performance. The universalistic perspective or HRM as an ideal set of practices suggests that a specified set of HR practices (the so called “best practices”) will always produce superior results whatever the accompanying circumstances (Pfeffer, 1994; Huselid, 1995; Brewster, 1999; Claus, 2003). The contingency perspective or HRM as strategic integration argues that an organisation’s set of HRM policies and practices will be effective if it is consistent with other organisational strategies (Fombrum, Tichy, & Devanna 1984; Gomez-Mejia & Balkin, 1992; Dyer, 1985; Golden & Ramanujan, 1985; Schuler & Jackson, 1987; Lengnick-Hall & Lengnick-Hall, 1988; Milkovich, 1988; Schuler & Jackson, 1987a; Butler, Ferris, & Napier, 1991; Cappelli & Singh, 1992). The configurational perspective or HRM as bundles makes use of the so-called “bundles” of HR practices, which imply the existence of specific combinations, or configurations of HR practices depending on corresponding organisational contexts, where the key is to determine which are the most effective in terms of leading to higher business performance (Arthur, 1992; Guest & Hoque, 1994; MacDuffie, 1995; Huselid & Becker, 1996; Delery & Doty, 1996; Ichniovski, Shaw, & Prennushi 1997; Wright & Snell, 1998; Boudreau, 2003; Alcazar, Fernandez, & Gardey, 2005). Finally, the fully integrated perspective argues that HRM strategy does not exist as a separate functional strategy but both HRM strategy and business strategy are developed “simultaneously” (Katou & Budhwar, 2008) rather than separately (Hall & Torrington, 1998).

Although each of the four perspectives - universalistic, contingency, configurational, fully integrated - complements the others by adding constructs, variables or relationships (Alcazar et al., 2005), a serious limitation that recent reviews of the literature points out is that the link between HRM and business performance is considered like a ‘black box’, i.e., lack of clarity regarding ‘what exactly leads to what’ (Park, Mitsuhashi, Fey, & Bjorkman, 2003; Gerhart, 2005; Alcazar et al., 2005). In empirically investigating the four perspectives most studies were based on cross-sectional data and the analysis employed was either ‘hierarchical regression models’ (Yount, Snell, Dean, & Lepak, 1996; Delery & Doty, 1996) or ‘competing regression models’ (Baron & Kenny, 1986) without proving causality. Thus, Becker and Gerhart (1996) and Fey, Bjorkman and Pavlovskaya (2000) exhorted researchers to use ‘structural equation modelling’ (SEM) to illuminate the ‘black box’ (Wright, Gardner, & Moynihan, 2003; Wright, Gardner, Moynihan, & Allen, 2005) between HRM systems and organisational performance. This is because the use of SEM is particularly appropriate when testing direct and indirect relationships between HRM policies and organisational performance (Dyer & Reeves, 1995) and when testing theoretically derived paths among various exogenous and endogenous variables (Guthrie, Datta, & Wright, 2004).

Therefore, the aim of this study is to propose a research model that includes the core constituents of the HRM-performance linkage perspective, and to empirically test it by employing the structural equation modelling methodology, instead of the usual regression equation methodology. Furthermore, except the different analytical tool that we use in this study, we consider the path of several contextual variables on organisational performance, such as management style, organisational culture, translation of HRM strategy into clear set of work programmes and deadlines, and the proactiveness of HRM in strategy making. Considering further, that there are no studies that test theoretically derived paths among various exogenous and endogenous variables in the Greek context, an attempt has been made in this paper to investigate how HRM influences organisational performance in the Greek context.

The remaining paper is organised as following. The next section presents the proposed research HRM-performance linkage framework and the hypotheses to be tested. Next, in order to empirically test this framework and the raised hypotheses the methodological approach is presented. Following this section the results of the estimated model are presented and explained. Finally, the paper ends with discussion and conclusions referring to the findings of the study.

2 RESEARCH MODEL AND HYPOTHESES

Although the resource-based-view (RBV) literature had a significant impact on strategic human resource management (SHRM) (Barney & Arikan, 2000), very few empirical studies up to date have tested the complex manner in which HRM policies create organisational value in the form of a sequence of linked variables (Huselid, 1995; Fey et al., 2000; Boselie, Paauwe, & Jansen, 2001; Guest, 2001; Batt, 2002; Park et al., 2003; Paul & Anantharaman, 2003; Katou & Budhwar, 2006; Vlachos, 2009). The usual causal pathway suggested by
theorists, depict the following sequence (Becker, Huselid, Pickus, & Spratt, 1997; Delery & Shaw, 2001; Edwards & Wright, 2001):

HRM (individual policies or systems) → HRM outcomes (skills, attitudes, behaviour) → performance (organisational or financial)

Considering this causal pathway the general framework of mediating models refer to an ‘indirect linkage’ through HRM outcomes, between HRM and business performance. In these models we may also see a “direct linkage”, between individual HRM policies, as well as internally consistent systems of HRM policies, and business performance (Schuler & Jackson, 1999; Harel & Tzafrir, 1999). However, it is not required these linkages to be simultaneously present. It is very possible even in the absence of a direct linkage, some policies to significantly contribute to business performance through the intervening process.

Furthermore, this intervening process may be ‘moderated’ according to business strategies relationship between individual HRM policies, as well as internally consistent systems of HRM policies, and business performance (Youndt et al., 1996). The moderation process is implied by the contingency perspective, which as we said supports that business strategies are followed by HRM policies in determining business performance. However, organisational contextual variables (Miles & Snow, 1984; Trompenaars, 1993; Brewster & Hegewisch, 1994; Budhwar & Sparrow, 1997; Budhwar, 2000) and other contingencies (Delaney & Huselid, 1996; Youndt et al., 1996) may also moderate this intervening process.

The major objective of mediating-moderating models has been to determine the extent to which individual HRM policies and/or HRM systems directly or indirectly enhance business performance (Katou & Budhwar, 2006). Such a model is presented in Figure 1, which is constituted by two parts. The mediating part refers mainly to the variables (circles) of HRM policies, HRM output, and Organisational performance. The moderating part refers mainly to the variables of Business strategies, Organisational context, and other Contingencies. The arrows connecting two circles (variables) indicate the hypotheses to be tested, as follows:

H1-1: Organisational context will be associated with Business strategies
H1-2: Organisational context will be associated with Organisational performance
H1-3: Organisational context will be associated with HRM output
H1-4: Organisational context will be associated with HRM policies
H2-1: Contingencies will be associated with Business strategies
H2-2: Contingencies will be associated with Organisational performance
H2-3: Contingencies will be associated with HRM output
H2-4: Contingencies will be associated with HRM policies
H3-1: Business strategies will be positively associated with Organisational performance
H3-2: Business strategies will be positively associated with HRM output
H3-3: Business strategies will be positively associated with HRM policies
H4-1: HRM policies will be positively associated with Organisational performance
H4-2: HRM policies will be positively associated with HRM output
H5: HRM output will be positively associated with Organisational performance
Specifically, although it is expected organisational context and contingencies to be associated with business strategies, organisational performance, HRM output, and HRM policies, the sign of this association depends on the specific variables constituting the organisational context and contingencies constructs. For example, capital intensity and employment size that are two of the major variables constituting contingencies, it is expected to positively be associated with organisational performance (Youndt et al., 1996; Richard & Johnson, 2001). On the contrary, life cycle stage and union intensity may not be positively associated with organisational performance (Delbridge & Whitfield, 2001; Christensen Hughes, 2002). Similarly, the translation of HRM strategy into clear set of work programmes and deadlines, and the proactiveness of HRM in strategy making that are two of the major variables constituting organisational context, it is expected to positively be associated with HRM output (Budhwar & Sparrow, 1997; Budhwar, 2000). On the contrary, management style and organisational culture may not be positively associated with HRM output (Miles & Snow, 1984; Trompenaars, 1993), depending on the specific constructs used.

The picture with respect to hypotheses referring to business strategies is clear. It is expected business strategies such as cost reduction, quality enhancement, and innovation to positively affect organisational performance (Porter, 1980, 1985), HRM policies (Schuler, 1989; Armstrong, 1996; Huselid, 1995; Delery & Doty, 1996), and HRM outcomes (Huselid, 1995; Paul & Anamtharaman, 2003). Furthermore, the picture with respect to the interrelationships of primary interest that are depicted by the hypotheses H4-1, H4-2 and H5, is also clear. For example, Doty and Delery (1997) argued that HRM policies positively influence firm performance by creating a workforce that is skilled, motivated, and empowered. Fey et al. (2000) provided some support for the use of HRM outcomes (motivation, retention and development) as mediating variables between HRM policies and firm performance. Guest (2001) used employee satisfaction and commitment, or employee quality, commitment and flexibility, as mediating variables. Boselie et al. (2001) indicated employee satisfaction, motivation, retention, presence, social climate, and involvement as HRM mediating outcomes between HRM policies and firm performance. Park et al. (2003) used employee skill, attitudes, and motivation as mediating variables between HRM systems and firm performance. Paul and Anantharaman (2003) indicated that the intervening variables of employee competence, teamwork, organisational commitment, and customer orientation affect the organisational performance variables of employee retention, employee productivity, product quality, speed of delivery, operating cost, which then determine financial performance.

In the following section the research methodology is presented that will be employed in order to test the model of Figure 1. The model specifies all the direct and indirect relationships between HRM policies, HRM outcomes and organisational performance, and moderates for business strategies, organisational context, and contingencies that may influence the endogenous variables of interest.
3 METHOD

3.1 Sample
A large questionnaire survey in 23 sector industries in the Greek manufacturing sector was carried out between March 2002 and September 2002. A sample of 600 Greek organisations was used from the main Greek directory ICAP (2001). The sample was obtained by employing the stratified methodology. The strata were the 23 manufacturing sector industries including organisations with more than 20 employees. 20 per cent of the approximately 3000 organisations were randomly chosen from each stratum of the directory. One hundred and seventy eight (178) usable self-administered questionnaires were received, a response rate of approximately 30 per cent.

3.2 Measures

**HRM policies:** For the classification of the HRM policies we followed Armstrong (1996) and Foot and Hook (1999). HRM policies were measured by the four key HRM areas of resourcing (recruitment; selection; separation; flexible work arrangements), development (individual and team training and development; monitoring training and development; careers; work design; performance appraisal), rewards (job evaluation; compensation; promotion arrangements; incentive schemes; benefits), and relations (employee participation; employee involvement; communications; health and safety). These 18 items were measured on a five-level scale ranging from 1 = not very effective to 5 = highly effective (Cronbach’s alpha = 0.952).

**Business strategies:** For the classification of the business strategies we followed the methodologies of Snell and Dean (1992), Youndt et al. (1996), Sanz-Valpee, Saborat-Sanchez, and Aragon-Sanchez (1999) and Huang (2001). Business strategies were measured by 8 items (cost reduction, customer service, distribution channels, quality enhancement, brand image, innovation, improvement of existing products, wide range of products) that define potential competitive priorities in manufacturing, including cost, quality and innovation. The business strategy items were measured on a five-level scale ranging from 1 = not very important to 5 = totally essential (Cronbach’s alpha = 0.772).

**HRM outcomes:** We have classified HRM outcomes with respect to skills, i.e., competent (Guest, 2001; Park et al., 2003) and cooperated (Richardson & Thompson, 1999); attitudes – motivation, commitment, satisfaction (Park et al., 2003); and behaviour, i.e., employees staying within the organisation (counterpart of turnover) and presence (counterpart of absenteeism) (Richardson & Thompson, 1999; Guest, 2001). The HRM outcomes items were measured on a five-level scale ranging from 1 = very bad to 5 = very good (Cronbach’s alpha = 0.952).

**Organisational Performance:** Organisational performance is usually indicated by indices such as effectiveness, i.e. if the organisation meets its objectives (Dyer & Reeves, 1995), efficiency, i.e. if the organisation uses the fewest possible resources to meet its objectives (Rogers & Wright, 1998), development, i.e. if the organisation is developing in its capacity to meet future opportunities and challenges (Phillips, 1996), satisfaction, of all participants – owners and investors, customers, society, other organizations, and organization members (Schuler & Jackson, 2005), innovation, for products and processes (Guest, 2001), and quality, % of products of high quality Richardson & Tompson, 1999). The organisational performance items were measured on a five-level scale ranging from 1 = very bad to 5 = very good (Cronbach’s alpha = 0.929).

**Organisational contextual variables:** Several organisational contextual forces may influence the adoption of business strategies such as ‘management style’ (1 = heavily centralised to 2 = heavily decentralised) (Miles and Snow, 1984), ‘organisational culture’ (1 = power-oriented, 2 = role-oriented, 3 = project-oriented, 4 = fulfilment-oriented) (Trompenaars, 1993), ‘type of involvement of HRM department in developing business strategies’ (1 = from the outset, 2 = consultative, 3 = implementation) (Brewer and Hegewisch, 1994), ‘translation of HRM strategy into clear set of work programmes and deadlines’ (0 = no, 1 = yes) (Budhwar and Sparrow, 1997; 2002), ‘proactiveness of HRM in strategy making’ (0 = no, 1 = yes) (Budhwar, 2000). The five organisational context items used produced Cronbach’s alpha = 0.533 that is rather low.

**Contingencies:** Several contingencies may influence the adoption of business strategies, HRM policies and performance (Delaney & Huselid, 1996; Youndt et al., 1996), such as ‘size’ (employment in logs) (Youndt et al., 1996), ‘age’ (in logs) (Delaney & Huselid, 1996), ‘life cycle stage’ (introductory, growth, maturity, decline, turnaround) (Christensen Hughes, 2002), ‘union intensity’ (percent of employees in unions) (Delbridge & Whitfield, 2001), ‘capital intensity’ (total assets by employment, in logs) (Richard & Johnson, 2001), ‘industry’ (0 = industries that their primary inputs for their production come mainly from the agricultural sector, and 1 =...
industries that their primary inputs for their production do not come from the agricultural sector) (Koch & McGrath, 1995). The six contingency items used produced Cronbach’s alpha = 0.644.

### 3.3 Statistical analysis

To test the developed research hypotheses of the proposed framework regression analysis may be used. Specifically, for testing whether business strategies moderate HRM policies, ‘hierarchical regression models’ may be used (Youndt et al., 1996; Delery & Doty, 1996) and for testing whether HRM outcomes mediate HRM policies and business performance ‘competing regression models’ may be used (Baron & Kenny, 1986). However, it is argued that the methodology of ‘structural equation models’ or ‘latent variable models’ (Hair, Anderson, Tatham, & Black, 2008; Agresti, 2002) is much more powerful in investigating causal relationships between categorical variables (Bollen, 1989; Bollen & Long, 1993; Mels, 2004), and thus this methodology was used in this study.

### 4 RESULTS

We tested the theoretical model presented in Figure 1 using the structural equation modelling (SEM) via the Statistical Package LISREL (Linear Structural Relations) and the maximum likelihood estimation (see Jöreskog & Sörbom, 2004). We used MLE because tests of departure from normality, skewness and kurtosis for all variables used (except union intensity) were all within acceptable statistical limits. Furthermore, the sample size of 178 in this study is within the range of 100 to 200 for using MLE procedures (Hair et al., 2008). Moreover, the general rule for SEM is that the number of observations needed for each parameter estimated must be between 5 and 10 observations (Hair et al., 2008), fact that is fulfilled in the present study. We assessed the overall model fit employing the chi-square test and the normed chi-square test and examining the root mean squared error of approximation (RMSEA) and the comparative fit index (CFI). A non-significant chi-square (i.e. \( p > 0.05 \)) and a value of the normed-chi-square (i.e. value of chi-square / degrees of freedom) between 1 and 2 or 3 indicate that the proposed model is an adequate presentation of the entire set of relationships (Seo, Han, & Lee, 2005). The RMSEA considers the fit of the model to the population covariance / correlation matrix. A value of RMSEA less than 0.05 indicates a close fit and a value less than 0.08 represent a reasonable approximation (Browne & Cudeck, 1993; Byrne, 2001). The CFI traces the relative improvement of the assessed model over a null where all observed variables are assumed to be uncorrelated. The CFI ranges from zero to 1.00, with values over 0.95 indicating a well-fitting model (Bentler, 1990; Hu & Bentler, 1999).

Each latent variable model is accompanied with a path diagram indicating all the causal relationships between the variables involved. The path diagram for the estimated HRM-performance linkage model proposed in Figure 1 is presented in Figure 2. In this figure the boxes represent exogenous or endogenous observed variables and the circles represent the related latent variables. The light arrows indicate the observed variables that constitute the related latent variable and the bold arrows indicate the structural relationships between the corresponding variables. The figures that are assigned to each arrow show the estimated standardised coefficients. The statistics presented in Figure 2 suggest that our estimated model possesses a satisfactory degree of fit with the data (\( p \) of Chi-Square = 0.15, Normed Chi-Square = 1.06, RMSEA = 0.018, CFI = 0.99).

Turning now to the SEM specific results the significant arrows between the various variables of the model suggest the following relationships.

- With respect to contingencies, it is seen that life cycle stage, union intensity, age, capital intensity, size and industry have directly linked to organisational performance (Becker & Olson, 1989; Huselid, 1995).
- Considering the organisational performance variables, management style, organisational culture, HRM involvement in developing business strategies, translation of HRM strategy into clear set of work programmes and deadlines, and proactiveness of HRM in strategy making have directly linked with business strategies and HRM outcomes.
- However, business strategies are followed by HRM policies in determining HRM outcome that consequently determines organisational performance. This result supports the contingency principle (Delery & Doty, 1996), advocating that HRM policies are determined by business strategies, and the mediation principle (Doty & Delery, 1997; Fey et al., 2000), arguing that HRM output mediates HRM polices and organisational performance.
Although we used 8 items in describing business strategies, only the items of cost reduction and customer service gave significant results in determining the business strategy latent variable.

With respect to the 18 HRM policy items used to describe the HRM policies latent variable, 13 items produced significant results. Specifically, recruitment and selection for resourcing, careers for development, incentives for employee rewards and communication, health and safety, participation, and involvement for employee relations presented the highest standardised coefficients.

With respect to the 8 HRM output items used to describe the HRM output latent variable, 7 items produced significant results. Specifically, cooperation with management, cooperation with employees and competence for skills, motivation, commitment and satisfaction for attitudes, and presence for behaviour presented the highest standardised coefficients.

All six organisational performance items (effectiveness, efficiency, development, satisfaction, innovation, quality) that describe organisational performance produced significant results.

Summarising the above, the path estimates displayed in Figure 2 indicate some divergence from the corresponding paths indicated in the proposed model in Figure 1. Specifically, Table 1 presents all testing results with respect to the hypotheses developed in Figure 1.
5 DISCUSSION

The contribution of this study is two-fold. First, although previous studies on the HRM-performance linkage perspective are based on regression–like analyses, the present study has adopted the different analytical tool of the structural equation modelling, following thus the suggestion of Becker and Gerhart (1996) and Fey et al. (2000). Second, the proposed and tested conceptual HRM-performance linkage framework put some light into the ‘black box’ mediating HRM policies and organisational performance, by considering also new organisational context variables.

5.1 Findings

Starting with the latent variable of ‘business strategies’ (cost reduction, customer service), path coefficients reveal that it is positively influenced by the ‘organisational context’ variable. This means that the more heavily decentralised is the management style, the more fulfilment – oriented (i.e. emphasis on expertise and orientation toward the person) is organisational culture, the more active the involvement of the HRM department is in developing business strategies, the more the HRM strategy is translated into clear set of work programmes and deadlines, and the more proactive of HRM is in strategy making, the more positive is the influence of organisational context variables on the development of business strategies. However, we must note here, that although we used 8 items constituting the three types of Porter’s (1980, 1985) business strategies of ‘cost’ (cost reduction), ‘quality’ (customer service, distribution channels, quality enhancement, brand image), and ‘innovation’ (innovation, improvement of existing products, wide range of products), only the variables of cost reduction and customer service fit into the model. This is may be due to the fact that Greek manufacturing firms put more emphasis on cost reduction and customer service than on quality or innovation (World Economic Forum, 1998).

Although, path coefficients reveal that the latent variable of ‘HRM outcomes’ (cooperation with management, cooperation with employees, competence, motivation, commitment, satisfaction, presence) is indirectly influenced by the organisational context variable, through business strategies and HRM policies, it has been found that it is directly, moderately and positively influenced by the organisational context variable. This result seems to be very important because it reveals that the internal environment of the organisation influences the skills, attitudes and behaviour of the employees, which in turn affect organisational performance (Keats & Hitt, 1998; Terpstra, Mahamed, & Rozell, 1996; Murphy & Southey, 2003). We must note here that to our surprise the variable of employee retention (counterpart of turnover) did not fit into the model, contrary to the findings of other researchers such as Katz, Kochan, and Weber (1985), Arthur (1994), d’Arcimoles (1997), Boselie et al. (2001), Fey et al. (2000) and Guthrie et al. (2004), who advocate that it affects organisational performance.

The latent variable of ‘HRM policies’, that is constituted by resourcing (recruitment, selection), development (individual and team training and development, careers, performance appraisal), rewards (job evaluation, compensation, promotion arrangements, incentive schemes), and relations (employee participation, employee involvement, communications, health and safety), path coefficients reveal that it is heavily and positively influenced by the ‘business strategies’ variable. This result indicating that business strategies are followed by HRM policies in determining business performance supports the contingency perspective, arguing that an organisation’s set of HRM policies and practices will be effective if it is consistent with other organisational strategies. The variables of separation, flexible work arrangements, monitoring training and development, work design, and benefits did not fit into the model. Although Becker and Gerhart (1996) have

<table>
<thead>
<tr>
<th>Path</th>
<th>Hypothesis</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organisational context → Business strategies</td>
<td>H1-1</td>
<td>Support</td>
</tr>
<tr>
<td>Organisational context → Organisational performance</td>
<td>H1-2</td>
<td>Reject</td>
</tr>
<tr>
<td>Organisational context → HRM output</td>
<td>H1-3</td>
<td>Support</td>
</tr>
<tr>
<td>Organisational context → HRM policies</td>
<td>H1-4</td>
<td>Reject</td>
</tr>
<tr>
<td>Contingencies → Business strategies</td>
<td>H2-1</td>
<td>Reject</td>
</tr>
<tr>
<td>Contingencies → Organisational performance</td>
<td>H2-2</td>
<td>Support</td>
</tr>
<tr>
<td>Contingencies → HRM output</td>
<td>H2-3</td>
<td>Reject</td>
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<tr>
<td>Contingencies → HRM policies</td>
<td>H2-4</td>
<td>Reject</td>
</tr>
<tr>
<td>Business strategies → Organisational performance</td>
<td>H3-1</td>
<td>Reject</td>
</tr>
<tr>
<td>Business strategies → HRM output</td>
<td>H3-2</td>
<td>Reject</td>
</tr>
<tr>
<td>Business strategies → HRM policies</td>
<td>H3-3</td>
<td>Support</td>
</tr>
<tr>
<td>HRM policies → Organisational performance</td>
<td>H4-1</td>
<td>Reject</td>
</tr>
<tr>
<td>HRM policies → HRM output</td>
<td>H4-2</td>
<td>Support</td>
</tr>
<tr>
<td>HRM output → Organisational performance</td>
<td>H5</td>
<td>Support</td>
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</table>
identified only three HRM policies that influence organisational performance to be common among various empirical studies, we decided to include in this study as many HRM policies as possible, considering that the proposed research model is tested for the first time in the Greek context using structural equation modelling. However, the HRM policies that fit into the model are all included in the classification key HRM areas suggested by Armstrong (1996) and Foot and Hook (1999).

In terms of mediation we found that the latent variable of ‘HRM outcomes’ mediates the relationship between ‘HRM policies’ and ‘organisational performance’. The results show that HRM outcomes strongly and positively affect organisational performance. Furthermore, it is seen that employee skills (cooperation between management and employees, cooperation among employees, competence), attitudes (motivation, commitment, satisfaction) and behaviour (presence) positively affect organisational performance. This finding demonstrates that the relationships between HRM policies and organisational performance may be mediated by HRM outcomes, such as employee skills, attitudes and behaviour. This finding coincides with Doty and Delery (1997) and Park et al. (2003) who argued that HRM policies influence organisational performance by creating a workforce that is skilled and has the right attitudes and behaviour. It also partially supports Guest (2001) for satisfaction and commitment, Boselie et al. (2001) for satisfaction and motivation, and Paul and Anantharaman (2003) for competence and commitment, arguing that these HRM outcomes affect organisational performance.

With respect to the latent variable of ‘organisational performance’ it is seen that all the variables (effectiveness, efficiency, development, satisfaction, innovation, quality) used to constitute this construct fit properly into the model. However, path coefficients reveal that organisational performance is moderately and positively influenced by the other ‘contingencies’ variable, supporting thus the argument of Harel and Tzafrir (1999) whereby organisations do not operate in a vacuum. Specifically, with the introduction of the ‘life cycle stage’ variable we tried to capture maturity effects of the organisation, or to assess the stage of organisational development. It is argued that HRM policies change over time depending on whether the organisation is in a stage of formation, growth, maturity, or decline (Budhwar & Sparrow, 1997). There is much evidence that unions affect a firm’s performance (Freeman and Medoff, 1984). In our study we found that union intensity is positively related to organisational performance, supporting thus similar findings of Arthur (1994) and Huselid (1995). Superior performance becomes crucial in firms that make large investment in plant, equipment and other assets. In our research we found that capital intensity is positively related to organisational performance (Hayes, Wheelwright, & Clark, 1988). We also found that the variable of size is positively related to organisational performance. Such results are expected as it is now known that large firms tend to have established HRM systems, which facilitate in improving performance of the organisation (Brewster et al., 1996). Furthermore, we found that the variable of age, that is used to capture any founding values of the organisation (Delaney & Huselid, 1996), positively influences organisational performance. Finally, we found that organisational performance depends on the industry specific effects (Shih et al., 2006).

5.2 Limitations and further research

A number of issues may limit the findings of the study. First, the data was collected using a questionnaire at a single point in time. As a result, the study based on cross-sectional data does not allow for dynamic causal inferences (Cavanaugh & Noe, 1999). Second, a single respondent from each organisation provided information on HRM policies and practices, HRM outcomes and perceived measures of organisational performance, respondent bias may have set in the form of upward or downward reporting of the measures (Paul & Anatharaman, 2003). Third, the survey was conducted in 2002. Although the scope of the study was focused in investigating structural relationships in the HRM-organisational performance framework, this framework may not be relevant today under the context of economic crisis. Last but not least, the study was applied in the context of Greece, with specific labour relations and institutional conditions, and thus the findings from the Greek sample may not generalise across borders (de Jong, Schalk, & Cuyper, 2009). Nevertheless, considering the limitations of the study we may propose paths for future research. Specifically, in this study we tried to explore the question of causality using cross-section data. However, causality can only really be tested with data collected at different points in time. Thus, the field would greatly benefit from some longitudinal studies in the future. Further, considering the pace of globalisation, there is a strong need for such investigations in emerging markets, through the inclusion of organisational context variables (Katou & Budhwar, 2006). Additionally, it would be very interesting to repeat the same study under the context of economic crisis and compare the findings.

5.3 Contribution of the study

In spite of such limitations, the study makes some important contributions. It tests theoretical assumptions in smaller firms and in a non-USA/UK context. It provides support to the mediation and contingency perspective. The study supports for the use of HRM outcomes (skills, attitudes, behaviours) as mediating variables between HRM policies and business performance. Thus, the research suggests that models depicting direct relationships between HRM policies and business performance may be too simplistic and does not show...
the causalties involved. This meets the advice of Becker and Gerhart (1996) and Fey et al. (2000) to test models with mediating variables such as HRM outcomes, using the methodology of structural equation modelling, and thus, contributing to this academic area of research.

5.4 Implications
The argument that HRM makes an impact on the bottom line may not be in dispute. However, what is of interest is in knowing how this impact has taken place. Thus, a managerial implication of this study is not only the demonstration that HRM policies are positively related to organisational performance in the Greek context, but also that employee skills, attitudes, and behaviours are three major components of the “black-box” that generate organisational competitiveness from HRM policies. Managers should recognise that changes in employee skills, attitudes, and behaviours that are caused by HRM policies precede changes in organisational performance (Katou & Budhwar, 2006). Specifically, (considering the highest standardised loadings of the constructs in Figure 2) the study argues that HRM policies with respect to employee incentives, communication and health and safety, create positive employee attitudes with respect to employee commitment, motivation and cooperation, which in turn will improve organisational effectiveness, innovation and satisfaction. Thus, practitioners should emphasise the proper use of these HRM policies, in order to improve organisational performance.

6 CONCLUSIONS
Concluding, we may say that although past research has demonstrated that there exists a relationship between HRM policies and organisational performance, it has neglected to investigate the mediating mechanisms, usually called the “black box”, through which HRM policies are hypothesised to affect organisational performance (Park et al., 2003). The results of this study support that HRM policies positively affect organisational performance of Greek manufacturing companies. Specifically, the relationship between HRM policies and organisational performance is mediated through the HRM outcomes of skills, attitudes and behaviour, and is moderated by business strategies, organisational context and other contingencies, giving support to the contingency perspective of the HRM-performance linkage. Thus, this paper not only supports that HRM policies have a positive impact on organisational performance, but it additionally explains the mechanisms through which HRM policies improve organisational performance and that too in a non US/UK context where most of research related to this field has been conducted.

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Workplace Culture Emotional Intelligence and Trust in the Prediction of Workplace Outcomes

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Abstract

There were two aims of this study. The first was to assess the reliability of a new measure of emotional intelligence (EI), the Workplace Culture version of the Swinburne University Emotional Intelligence Test (SUEIT) which was designed to measure EI at a group level. The second aim of the study was to investigate the pre-conditions required for the formation of an emotionally intelligent group culture. Specifically, the study proposed that team leader trustworthiness at the leader/member dyad level was required for the formation of an emotionally intelligent culture at the group level. The sample comprised of 142 participants, of which 54 were male and 88 were female. Participants completed a questionnaire assessing perceptions of group EI, leader trustworthiness, job satisfaction and organizational commitment. Results of the study showed that the Workplace Culture SUEIT was reliable and predicted job satisfaction and organizational commitment. Furthermore, trustworthiness of the team leader was found to be significantly correlated to dimensions of group level EI, job satisfaction and organizational commitment. It was concluded that the Workplace Culture SUEIT is a valid and useful tool for measuring group level EI. Furthermore, it was concluded that there is a significant relationship between group level EI and leader/member trust. Implications of the results and future research concerning group and leader EI are discussed.

Keywords: Emotional Intelligence; Culture; Job Satisfaction; Organizational Commitment
1 INTRODUCTION

Organizational Culture

The culture of an organization is often cited anecdotally and in both management and psychology journals as an important driver of individual, team, and company success (Barney, 1986). Although culture has been proven to be a powerful force in organizations, as it can shape people’s thoughts, behaviours and emotions within their workplace (Pizer & Hartel, 2005), scholarly discourse has largely ignored the role of emotions in organizational culture (Beyer & Nino, 2001). Recently it has been argued that the power of culture is largely due to the emotional needs of individuals (Pizer & Hartel, 2005), and how these needs are fulfilled by leaders (Downey, Papageorgiou & Stough, 2006), groups (Jordan, Ashkanasy, Hartel & Hooper, 2002) and by association, organizations as a whole. Emotions are processes that result from the social context in which they are elicited and that, in turn, influence how people feel and act in this social context (De Dreu, West, Fischer & Levine, 1999). Indeed, culture provides a social medium within which members can identify and form emotional bonds with each other (Beyer & Nino, 2001); which can satisfy their need for belonging (De Dreu et al., 2002), commitment to organizations (Schein, 2004), trust in leaders (Gardner, Fisher & Hunt, 2009), and job satisfaction (Shiu & Yu, 2010). Given this recent focus on the emotional needs of employees, this study aimed to identify whether how groups express, understand, use, manage and control emotions and the trust engendered by the leader of teams was predictive of organizational outcomes.

There are two distinct, yet not necessarily competing traditions of researching organizational context: namely, organizational climate and organizational culture (Denison, 1996). The study of culture and climate are theoretically based on both symbolic interactionism and social constructionism, which posit that patterns of interaction evolve over time to form systems of normative control (Denison, 1996). Culture has been defined as a “dynamic phenomenon that surrounds us at all times, being constantly enacted and created by our interactions” (Schein, 2004, p. 1). In this regard, the ongoing dynamic relationships between individuals, lead to the creation of an underlying schema embodying the sum total of underlying shared beliefs, values and norms which provide meaning in a given social system (Pizer & Hartel, 2005). This cultural schema is shaped by and in turn shapes its members (Ancona, Kochan, Scully, Van Maanen & Westney, 1999). Cultural norms manifest in a given culture can be thought of as shared expectations of group members mandating how one ought to behave (Levine & Moreland, 1990). These norms have been shown to have powerful social information processing effects on organization members (O’Reilly III & Caldwell, 1985). Denison (1996) has argued that the differences between these two research traditions are due to interpretational differences of the same phenomena, and is likely to be a case of research into different levels (individual / group) and abstractions (conscious / unconscious) of the same phenomena. Research into climate is most appropriate at the group level (Anderson & West, 1999), as it is important to identify perceptions as being shared before conclusion about climate can be drawn. In the present study, the term culture will refer to those phenomena subsumed under both culture and climate theory, for as Ashforth (1985) has suggested, the concept of culture may have consumed the climate concept. Logistic and temporal limitations of this study required that the focus on the study be on perceptions of culture from an individual embedded within that culture.

Emotional Intelligence

Although culture has been proven to be a powerful force in organizations which shapes people’s thoughts, behaviours and emotions (Pizer & Hartel, 2005), scholarly discourse has largely ignored the role of emotions in organizational culture (Beyer & Nino, 2001). Recently it has been argued that the power of culture is largely due to the emotional needs of individuals (Pizer & Hartel, 2005). As De Dreu and colleagues (De Dreu et al., 2002) succinctly stated, emotions are “processes that result from the social context in which they are elicited and that, in turn, influence this social context” (p. 201). Indeed, culture provides a social medium within which members can identify and form emotional bonds with each other (Beyer & Nino, 2001) to satisfy the needs for belonging (De Dreu et al., 2002), identity (Schein, 2004) and social integration (Ashforth, 1985). The cultural forms which allow members to deal with emotional needs can be seen through different rituals, rights and norms of interaction. In fact, researchers agree that culture manages emotion: with cultural norms allowing individuals to experience and express emotions both internally and externally (Beyer & Nino, 2001).

Research on the relevance of emotions in the workplace has recently focused on the construct of emotional intelligence (EI), this construct may offer a viable method of exploring how the emotional abilities of teams and individuals contribute to workplace outcomes. Research and practitioners alike have embraced the relevance of EI in the workplace, with organizational research identifying important relationships between individual EI assessments and organizationally relevant constructs and outcomes. The level of EI in individuals has been found to be related to effective leadership behaviours (Downey et al., 2006), psychological well-being (Salovey, Stroud, Woolery & Epel, 2002; Slaski & Cartwright, 2002), affective commitment (Carmeli, 2003), and job satisfaction (Wong & Law, 2002). In regards to group performance, a recent study (Jordan et al., 2002)
investigated the relationship between EI and the performance in a sample of 44 Australian work teams over a period of nine weeks. It was found that, in the early weeks, the teams scoring high on EI performed significantly better than the lower scoring teams. Jordan and colleagues concluded that more emotionally intelligent individuals are more able to form cohesive and effective work teams more quickly than less emotionally intelligent individuals. Whether this team success was predicated on particularly high scoring individuals driving up team averages in a high performing team, or whether persons in leadership positions particularly had higher or lower levels of EI and how this impacted team performance is unclear. Assessment of a “teams’ collective or cultural EI may serve as a useful alternative to individual assessments of EI, and may offer an insight into the relevance of collective levels of EI in predicting outcomes linked to team success.

Several models and measures of EI have been proposed in recent years, with the measures generally falling within one of two conceptions of the construct - ability or trait. Both the ability and trait measures of EI have been shown to have predictive validity across the 20 years of research concerning EI (Stough, Saklofske & Parker, 2009). The pre-eminent measure of ability EI is the Mayer Salovey Caruso Emotional Intelligence Test (MSCEIT; Mayer, Salovey, Caruso & Sitarenios, 2003), which assesses EI by having respondents solve emotional problems rather than being asked to self-rate their emotional skills. The MSCEIT provides scores on 4 dimensions of EI: (1) the ability to identify or perceive emotions; (2) the ability to use emotions to facilitate thought; (3) the ability to understand emotions; and (4) the ability to manage one’s emotions and the emotions of others. The MSCEIT has not been widely utilized in organizational psychology, and there have been some inconsistent findings. For example, scores on the MSCEIT have been found to be related to leadership effectiveness (Rosete & Ciarrochi, 2005) in a sample of Australian public service managers, but no relationship was observed between manager's emotional intelligence and leadership style or the leader's perceived effectiveness by Weinberger (2009) in a sample of 151 North American managers. This inconsistency may be a result of these EI scores representing the respondents’ maximal performance on the assessment (Gignac, Palmer, Manocha & Stough, 2005), rather than how they behave in certain situations (Brody, 2004), such as in the workplace.

In regards to ‘trait’ assessments of EI, a number of assessments have been developed within the last 20 years, and have demonstrated greater predictive efficacy and use within the organizational psychology field. This may in part be due to their relatively easier administration, brevity, and availability in rater formats. Whilst some criticism still exists concerning the discriminant validity of self-report measures from other trait assessments such as personality (Ciarrochi, Chan & Caputi, 2000), and lesser magnitude of overlap with measures of general mental ability or IQ than ability measures, a number of ‘trait’ measures have demonstrated predictive efficacy across organizationally relevant variables. To cite but a few findings from the Industrial/Organizational Psychology field, higher levels of EI have been associated previously with lower levels of perceived stress, workplace distress, and better quality of working life (Slaski & Cartwright, 2002); effective leadership behaviours (Downey, et al., 2006; Gardner & Stough, 2002) of senior managers; and collaborative conflict management skills (Jordan & Troth, 2002). Taken together these findings suggest that at an individual level, higher levels of EI allow individuals to model good behaviors that allow individuals to lead more effectively, deal with work-related stress adaptively, and foster collaborative relationships through greater expression, understanding, use and management of emotions.

Traditionally EI has been measured and evaluated on the individual level. More recently scholars have turned their attention to how EI may operate at the group level (Druskat & Wolff, 2001). Preliminary results have been encouraging with researchers creating new group measures of EI (Jordan, et al., 2002), and reporting findings that group EI is related to group performance (Feyerherm & Rice, 2002; Jordan, et al, 2002). More recently, Elfenbein, Polzer, and Ambady (2007) found that the ability of a team to recognize teammates’ emotions (using a measure of team emotion recognition accuracy) accounted for over 28% in team performance approximately one year later. The current study aims to assess a new measure of group level EI, a cultural version of the existing Workplace Swinburne University Emotional Intelligence Test (SUEIT: Palmer & Stough, 2001). This modification of the SUEIT will allow the current study to assess whether group, or cultural levels of EI (assessing emotional recognition and expression, understanding of emotions, use of emotions, management and control of emotions at the group level) are related to the important organizational variables of job satisfaction and organizational commitment.

Research into EI as it applies to teams and leadership has found EI to be related to leader performance (Wong & Law, 2002) and team performance (Jordan, et al, 2002; Feyerherm & Rice, 2002). There is however, a lack of research attention directed towards the role of the leader in facilitating the creation of EI within a team. Although some leadership models posit a critical role for managing emotions, such as transformational leadership models which involve managing emotions (Ashforth & Humphrey, 1995) and charismatic leadership models which emphasize managing ones own emotions and the emotions of team members (Ashkanasy & Tse, 2000), the specific leadership determinants facilitating the formation of collective norms of EI in groups have yet to be researched. The current study proposes that trust is a key element for the creation of EI in groups.
Specifically, trust in the team leader, who acts as the model for team behaviour is proposed to be essential for the formation of EI in groups (Edmondson, 1999).

Trust
Trust is “the central issue in human relationships both within and outside organizations” (Kouzes & Posner, 2006, p. 27) and is critical to understand interpersonal and group behaviour (Hosmer, 1995). The current trend in organizations towards more team centred, matrix organizational structures has highlighted the criticality of trust dynamics in team effectiveness (Costa, 2003) and for the successful management of teams (Butler, 1991). The growing popularity of the use of teams (virtual, dynamic, static) has seen a reduction in traditional management mechanisms and an increase in within team interaction and dynamic leadership. To be successful, teams require a high level of mutual trust (Mayer, Davis & Schoorman, 1995) to facilitate an environment of psychological safety necessary for the confidence to take interpersonal risks required for team health and effectiveness (Edmondson, 1999).

Over the last decade, trust has enjoyed an increasing amount of research attention in the organizational context due to important findings which place trust as a key element for organizations and its members (Kramer, 1999) critical for enduring organizational and individual effectiveness (McAllister, 1995). Trust has been found to be related to performance (Costa, Roe & Tailleau, 2001; Dirks, 1999), satisfaction (Costa, et al., 2001; Costa, 2003; Aryee, Budhwar & Chen, 2002), commitment (Costa et al, 2001; Costa, 2003; Watson & Papamarcos, 2002; Aryee, et al., 2002) and openness with feelings (Zand, 1976). An exact definition of trust is elusive and agreement on any universal definition is lacking, in large due to conceptions of trust differing on the individual, group and organizational levels (Rousseau, Sitkin, Burt & Camerer, 1998). Therefore it is critical to define the boundaries of the construct used in a given study (Costa, 2003). Most researchers agree that the essential parts of a definition of trust must include, as Mayer and colleagues (Mayer, et al., 1995) described them, “a willingness to be vulnerable” and “a willingness to take risks” (p. 712). Trust requires two parties, the party to be trusted (trustee) and the party that trusts (trustor). A full definition of trust must take into account qualities of both parties, however, the present study will focus solely on the qualities of the trustee (leader), specifically, the trustworthiness of the leader.

Perceived trustworthiness is the strongest component of trust as reported in a number of studies (Costa, 2003), and is operationally defined according to three characteristics of the trustee outlined in the model by Mayer, Davis and Schoorman (1995). The three characteristics are: 1) ability or the skill and characteristics which enable the trustee to have influence in a specific domain (in this case, leadership); 2) benevolence which refers to the extent to which the trustee is believed to want to do good to the trustor; and 3) integrity which refers to the trustor’s perception that the trustee adheres to a set of principles and values the trustor finds satisfactory. The aim of the present study is to establish whether these specific elements of trustworthiness in the leader can serve to align the team and make them more emotionally intelligent and whether trust is a necessary precondition in the formation of an emotionally intelligent team. It is important to highlight that trustworthiness does not necessarily indicate trust; it is merely an essential component in the formulation of a trusting relationship, or more specifically for this study, a trusting culture of EI. In the organizational context and especially within teams, where the onus is on the team leader to model behaviour, trust is second to none (Butler, 1991), without trust you cannot lead (Kouzes & Posner, 2006). One has to trust one’s leader especially if one is to “take risks” in dealing with emotions. Previous studies have shown trust in managers to be related to job satisfaction, for example, Maltzer & Renzl (2006) showed a significant relationship between employee trust in management and job satisfaction. Smith & Barkley (1997) found that mutual perceived trustworthiness had both direct and indirect effects on satisfaction.

Trust has also been found to have effects of leadership and helping behaviours, for instance, Podsakoff and colleagues (Posakoff, MacKenzie, Moorman & Fetter, 1990) found indirect effects of trust mediating the relationship between transformational leadership behaviours and organizational citizenship behaviours, a result which was repeated by Pillai and colleagues (Pillai, Schriesheim & Williams, 1999) in two comprehensive longitudinal studies. Konovsky and Pugh (1994) found that employees that were trusting of their supervisor were more likely to exhibit organizational citizenship behaviours. In the present study, the trust relationship between a leader and a team member is viewed as a dyadic relationship, based on Graen and Schiemann’s (1978) vertical dyad linkage model, where leader and member agreement of trust varies as a function of their interdependency. This reciprocal, mutually reinforcing process of trust leads to agreement on the conditions of trust within the dyad (Butler, 1991). The Leader Member Exchange (LMX) theory of leadership (Graen & Uhl-Bien, 1995) posits a cumulative effect of separate dyadic relationships between superiors and subordinates where the focus is on the qualities of the dyadic relationship rather than any static traits or behaviours in the dyad (House & Aditya, 1997). The LMX theory looks at the measurable qualities and attributes of the relationship which facilitate effective relationships, rather than looking at the myriad ways in which these relational attributes could arise due difference in leader / follower traits and behaviours and contextual factors such as work culture, environment and value systems. According to LMX theory, the qualities of the
relationship which foster positive outcomes include trust, respect and openness, which lead to open communication and mutual influence within the dyad (Graen & Uhl-Bien, 1995). A team consists of a finite number of these leader / follower dyads.

The quality of LMX relationships can be measured through the extent to which mutual trust exists within the relationship (Seabright, Leventhal & Fichman, 1992). Leaders that prove trustworthy are able to model behaviour for the trustor which leads, in a team environment, to mutual trust relationships within the group which could be said to be essential in the formation of any culture of EI. A study by Hoffman, Morgeson and Gerras (2003) showed that employees extended obligations of leadership-member based social exchanges into broader contextual behavioural expectations. Thus, perceptions of trustworthiness at the leader-member level can extend to perceptions of trustworthiness at the group culture level. Thus, a cultural norm appears in the form of mutually rewarding and effective trust relationships. Also, the trust the leader embeds in the culture leads to a willingness by followers to be creative in problem solving and encourages mutual control, participation and understanding (Fairholm, 2003), which are all hallmarks of emotionally intelligent behavior.

The aim of the current study was to identify whether an assessment of workplace culture EI is related to individual job satisfaction and commitment and whether these relationships were modified by individuals trust in their leader. There is currently a paucity of empirical research into the relationship between trust and organizational culture, especially the role of the leader in embedding a culture of trust and EI into teams. The current study aims to address the lack of research concerning the concepts of trust and culture, specifically by addressing those elements of culture which seems to require the highest amounts of trust, namely that of dealing with feelings and emotions in the workplace. Given the previously reported studies concerning the role of individual EI, and trust in producing important organizational outcomes, it was possible to generate some tentative hypotheses. It was expected that Workplace Culture EI and leader trustworthiness would be positively related, and would both be positively related to the individual organizational outcomes of job satisfaction and organizational commitment.

2 METHOD

Participants
The sample comprised 142 participants (54 males and 88 females) aged between 21 and 66 (M = 43.66; SD = 10.04). Participants were recruited from an Australian council, the sample comprised individuals from all levels, participants varied from senior management to individual contributors to direct reports, as long as they were a member of a team and reported to the leader of that team.

Materials
Participants completed four self-administered questionnaires: the Culture version of the SUEIT, a job satisfaction scale developed by Warr, Cook and Wall (1979), an organizational commitment scale developed by Porter, Steers, Mowday and Boulian (1974), and a trustworthiness scale by Mayer, Davis and Shoorman (1995).

The Workplace Culture SUEIT is a 64-item scale, based on the Workplace SUEIT (Palmer & Stough, 2001), it measures participants’ ratings of the emotional intelligence of their workplace on five dimensions as well as providing an overall emotional intelligence rating. The five dimensions included: (1) Emotional Recognition and Expression (11 Items; “Members of the group that I am rating find it difficult to express how they feel”); (2) Understanding of Emotions External (20 Items; “Members of the group that I am rating can tell how colleagues are feeling at work”); (3) Emotions Direct Cognition (12 Items; “Members of the group that I am rating do not allow their emotions to guide them in making decision at work”); (4) Emotional Management (12 Items; “Members of the group that I am rating find it easy to comfort colleagues when they are upset about something at work”); and (5) Emotional Control (9 Items; “Members of the group that I am rating when anxious, remain focused on what they are doing at work”). Participants were required to state whether they agreed or disagreed with each of the statements. No reliability or validity data was available for the Workplace Culture SUEIT given this is the first study to utilize this measure, however, the Workplace SUEIT has been found to be a reliable test for both general (Downey, et al., 2008) and executive normative samples (Downey, et al., 2007; Gardner & Stough, 2002).

The job satisfaction questionnaire scale (Warr, et al., 1979) consisted of 15 items relating to 15 work elements (such as recognition, management, and physical conditions). An example item was “Please show how satisfied or dissatisfied you feel with the amount of variety in your job.” The questionnaire also included one item assessing overall satisfaction (“Now, taking everything into consideration, how do you feel about your job as a whole”). Using a 7-point Likert scale (1=Extremely Dissatisfied, 7=Extremely Satisfied) participants were required to respond how satisfied they were with their workplace. The reported internal reliability for this scale is high (0.88). Furthermore, the additional overall satisfaction item has been found to be highly correlated with the job satisfaction (r = 0.80) scale (Winefield, Gillespie, Stough, Dua & Hapuararchchi, 2002).
The organizational commitment questionnaire was a 5-item scale, which consisted of items taken from Porter, Steers, Mowday and Boulian’s (1974) scale. An example item was “I am proud to tell other that I am part of this organization”. Participants were required to respond according to the extent that they agreed with each of the items using a 5-point Likert-type scale (1=Strongly Disagree, 5=Strongly Agree). The internal reliability for this scale has been reported to be high (0.84) (Winefield, et al., 2002).

The trustworthiness questionnaire was a 17-item scale developed by Mayer, Davis and Shoorman (1995), which assessed participants’ rating of the trustworthiness of their leader along three dimensions. The three dimensions included: (1) Ability (6 Items; “My manager has specialized capabilities that can increase our performance”); (2) Benevolence (5 Items; “My needs and desires are very important to my manager”); and (3) Integrity (6 Items; “Sound principles seem to guide my managers behaviour”). Using a 5-point Likert scale (1=Strongly Disagree, 5=Strongly Agree), participants responded in accordance to the degree in which they agreed with each of the statements. Previous studies have found strong reliabilities for all trust dimension, for example Gill and colleagues (Gill, Boies, Finegan & McNally, 2005) found Cronbach’s alpha levels of .93 for each dimension.

3 RESULTS

The range of the scores, means, and standard deviations of the ratings of the team EI, how committed each employee was to the council, how trustworthy their direct manager appear in Table 1 below. Importantly the internally consistencies for the Cultural EI measure were relatively high, suggesting that the scales of the newly developed measure were internally reliable. Additionally, reliability of Job Satisfaction, Organisational Commitment and Trust scales are comparable to previously reported reliability coefficients.

Table 1: Descriptive Statistics for Study Variables

<table>
<thead>
<tr>
<th></th>
<th>Range</th>
<th>Mean</th>
<th>SD</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional Recognition &amp; Expression</td>
<td>11-22</td>
<td>18.18</td>
<td>3.02</td>
<td>0.81</td>
</tr>
<tr>
<td>Understanding Emotions</td>
<td>22 – 39</td>
<td>33.69</td>
<td>4.52</td>
<td>0.85</td>
</tr>
<tr>
<td>Emotions Direct Cognition</td>
<td>13 – 23</td>
<td>17.18</td>
<td>2.49</td>
<td>0.63</td>
</tr>
<tr>
<td>Emotional Management</td>
<td>12 – 24</td>
<td>18.66</td>
<td>3.49</td>
<td>0.83</td>
</tr>
<tr>
<td>Emotional Control</td>
<td>9 – 18</td>
<td>14.17</td>
<td>2.63</td>
<td>0.79</td>
</tr>
<tr>
<td>Total Emotional Intelligence</td>
<td>76 – 121</td>
<td>101.87</td>
<td>11.81</td>
<td>0.92</td>
</tr>
<tr>
<td>Ability</td>
<td>7 – 30</td>
<td>22.92</td>
<td>4.58</td>
<td>0.89</td>
</tr>
<tr>
<td>Integrity</td>
<td>5 – 25</td>
<td>17.97</td>
<td>4.45</td>
<td>0.93</td>
</tr>
<tr>
<td>Benevolence</td>
<td>6 – 30</td>
<td>22.09</td>
<td>5.56</td>
<td>0.94</td>
</tr>
<tr>
<td>Trust</td>
<td>18 – 85</td>
<td>62.97</td>
<td>13.77</td>
<td>0.97</td>
</tr>
<tr>
<td>Organisational Commitment</td>
<td>5 – 22</td>
<td>15.09</td>
<td>2.98</td>
<td>0.81</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>30-102</td>
<td>73.77</td>
<td>13.66</td>
<td>0.90</td>
</tr>
</tbody>
</table>

Inter-correlations were calculated in order to examine the relationship between each of the Cultural EI ratings and the satisfaction, commitment and trustworthiness ratings in order to identify if any significant overlap existed between the organizational variables, leader trustworthiness and the Cultural EI of the respective teams. The correlation coefficients are displayed in Table 2 below.

Table 2: Inter-correlations between study variables

<table>
<thead>
<tr>
<th></th>
<th>Organizational Commitment</th>
<th>Job Satisfaction</th>
<th>Ability</th>
<th>Benevolence</th>
<th>Integrity</th>
<th>Trust</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional Recognition &amp; Expression</td>
<td>.358**</td>
<td>.447**</td>
<td>.367**</td>
<td>.289**</td>
<td>.295**</td>
<td>.335**</td>
</tr>
<tr>
<td>Understanding Emotions</td>
<td>.460**</td>
<td>.594**</td>
<td>.495**</td>
<td>.452**</td>
<td>.473**</td>
<td>.502**</td>
</tr>
<tr>
<td>Emotions Direct Cognition</td>
<td>.048</td>
<td>-.052</td>
<td>.001</td>
<td>-.008</td>
<td>-.009</td>
<td>-.006</td>
</tr>
<tr>
<td>Emotional Management</td>
<td>.401**</td>
<td>.541**</td>
<td>.377**</td>
<td>.422**</td>
<td>.396</td>
<td>.422</td>
</tr>
<tr>
<td>Emotional Control</td>
<td>.427**</td>
<td>.470**</td>
<td>.334</td>
<td>.381**</td>
<td>.356</td>
<td>.378</td>
</tr>
<tr>
<td>Organisational Commitment</td>
<td>1</td>
<td>.453**</td>
<td>.355**</td>
<td>.295**</td>
<td>.331**</td>
<td>.347**</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>.453**</td>
<td>1</td>
<td>.530**</td>
<td>.609**</td>
<td>.618**</td>
<td>.623**</td>
</tr>
</tbody>
</table>

Note: * = p < 0.05, ** = p < 0.01
Significant overlap was observed between four of the EI sub-scales (excepting the emotions direct cognition sub-scale) and the participants’ levels of job satisfaction and commitment to the organization. Significant positive overlap was also observed between the trustworthiness of leaders and organizational commitment and job satisfaction, along with significant overlap between the trustworthiness ratings of the leader and the EI of the teams. Given the observed overlap between Cultural levels of EI and the organizational outcome measures, in line with the hypotheses, mediation analyses were undertaken to assess whether these relationships were modified by individuals trust in their leader. The mediation analyses were conducted to assess the mediating relationship of trust in the leader when added to a regression model with Emotional Recognition and Expression, Understanding Emotions, Emotional Management and Emotional Control as the initial variables and either Job Satisfaction or Organizational Commitment as the outcome variable, and the Sobel test (Sobel, 1982) was utilised to assess if the indirect effect was significant.

For Organizational Commitment, the regression models involving Understanding Emotions ($z = 2.27, p = 0.02$) were significantly reduced with the addition of Trust, confirming that it mediated the relationship. For Job Satisfaction, the relationship with Understanding Emotions ($z = 2.75, p = 0.005$) was significantly mediated by the addition of Trust. A representation of these relationships is presented in Figure 1. The remaining mediation analyses indicated that trust only partially mediated the relationships between the EI dimensions and the organizational outcomes assessed (Figure 1). The strength of the relationships were all reduced, but not to the point where the regression models became non-significant. Further to this, the Sobel’s tests did not indicate that a significant proportion of variance was carried through the mediator (Trust) in these models.

Figure 1: Mediation models for EI, Trust and Organizational Outcomes
4 DISCUSSION

Assessment of the mediating effects of trust in leaders and workplace cultural EI on individual job satisfaction and organizational commitment in an Australian council showed that team members’ ability to understand the emotions of other team members was predictive of trust in team leaders and individual job satisfaction and commitment to the organization. These relationships were investigated using mediation analyses, whereby the relationship between Understanding Emotions and both job satisfaction and organizational commitment were significantly mediated by team members’ trust in their leader. These findings suggest that how well members of the teams assessed believed their emotions were being understood was predictive of their level of trust in their manager, which in turn predicted how committed they were to the council and satisfied with their current position. This finding follows on from the suggestion that trust is a key element for the creation of emotionally intelligent workgroups (Edmondson, 1999). Specifically, the degree of trust in the team leader was the mediating factor between the EI of the teams surveyed and the organizational outcomes assessed. This study confirms that emotionally intelligent culture has a powerful effect on group member levels of job satisfaction and organizational commitment. While previous research has shown individual levels of EI to be positively associated with individual employee satisfaction (Gardner & Stough, 2003; Wong & Law, 2002) and commitment (Gardner & Stough, 2003; Nikolaou & Tsaousis, 2002), effects of EI at the cultural level have not been studied extensively. The results of the present study lend support to the evidence that culture has powerful effects on individuals (Pizer & Hartel, 2005), and that assessment of EI at the cultural level can provide valuable information concerning the functioning of teams.

Regarding the predictive efficacy of the ratings of the cultural levels of understanding emotions, the greater understanding of the emotions of other group members may increase organizational commitment through fostering a climate of empathy or caring. This psychological or emotional tie to workers within the organization may actually be extended to an affective tie to the organization as a whole, leading to greater employee commitment. Again, at the individual level, levels of EI have been previously linked to higher levels of empathy (Ciarrochi, et al., 2000). In the workplace, increased empathy, or understanding of others emotional state, may help team-members to regulate their emotions and achieve workplace goals. Given the identified mediating role of trust in the leader, the ability of group leaders or managers to demonstrate the necessary skills or ability to lead their team, principles and values their team members find acceptable, and appearing to be benevolent towards their team members appears to be a necessary condition for the formation of an emotionally intelligent team. This seems to reinforce the claim that trust is the “emotional glue that can bond people to an organization” (Bennis, 2006, p.139). Through this accepting and trusting culture, driven by the trust employees have in their leaders/managers, employees may feel more committed to the organization as a whole as a consequence of the emotionally intelligent culture trusted managers can embed in their teams through attending to their employee’s emotions within the workplace.

In regards to the mediation analyses concerning job satisfaction, the relationship between the workgroups ability to understand the emotions of the team-mates and levels of job satisfaction were again mediated by trust in the leader. Similar to previous research that has shown trust to be an essential tool in management, especially in fostering employee job satisfaction (Podsakoff, et al., 1990; Konovsky & Pugh, 1994; Pillai, et al., 1999; Maltzer & Renzl, 2006), the present study showed strong relationships between perceived trustworthiness of the leader and job satisfaction. Further to this, the degree of job satisfaction of employees was also significantly related to how well employees believed their team members were able to understand each others emotions. A greater ability to understand the emotions of team members should contribute to the quality of the emotional experiences of team members, with workmates being able to identify and interpret emotional information from their colleagues to inform self-regulatory actions. Greater attention and understating of the emotional states of team members should contribute to an accepting workplace culture, tolerant and accommodating of the emotions of team-mates. This acceptance of emotions may contribute to employees’ reports of greater satisfaction with their jobs through knowing that they can express pleasure or displeasure within the workplace, and that the emotional information will be construed correctly. This understanding culture is especially
important in the development of trust in one’s manager, as being able to share on an emotional level contributes to the formation of emotional bonds (Beyer & Niño, 2001), satisfy the needs for belonging (De Dreu, et al., 2001), identity (Schein, 2004) and social integration (Ashforth, 1985) in the workplace.

5 CONCLUSION

While both higher levels of the ability to understand the emotions of others and greater trust in managers predict unique variance in the organizational outcomes, job satisfaction and organizational commitment, the relationships described herein between these two constructs offers a more sophisticated understanding of how these variables predict workplace variables. Whilst ratings of individual traits and their relationship to workplace variables provide important information concerning how individual qualities contribute to performance and workplace behaviour, they do not specifically illustrate how these individual qualities impact at the group or cultural level. Reliable assessment of cultural factors at the group or organizational level can further inform organizations about the downstream effects of more or less effective behaviours on group dynamics and performance. The results of the present study provide preliminary evidence concerning the role of group level EI, trust in leaders, and their mediating role in individual job satisfaction and organizational commitment.

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Determinants of Customer Continuance Intention of Online Shopping

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Abstract

The purpose of this study is to clarify theory and identify factors that could explain the level of continuance intention of e-shopping. A revised technology acceptance model integrates expectation confirmation theory and investigates effects of age differences. An online survey of internet shoppers in Saudi Arabia. Structural equation modelling and invariance analysis confirm model fit. The findings confirm that perceived usefulness, enjoyment and social pressure are determinants of e-shopping continuance. The structural weights are mostly equivalent between young and old but the regression path from perceived usefulness to social pressure is stronger for younger respondents. This research moves beyond e-shopping intentions to factors affecting e-shopping continuance, explaining 55% of intention to continue shopping online. Online strategies cannot ignore direct and indirect effects on continuance intentions. The findings contribute to literature on internet shopping and continuance intentions in the context of Saudi Arabia.

Keywords: Internet shopping, e-shopping, technology acceptance, young and old examination, continuance e-shopping, Saudi Arabia.

Acknowledgment: The authors thank the respondents, the editors, and the reviewers for their valuable feedback. Special thanks to our families for their continued support.
1 INTRODUCTION

E-Commerce and e-shopping create opportunities for businesses to reach consumers globally and directly—indeed, they are transforming retailing (Alden et al. 2006; Holt et al. 2004). Unsurprisingly, e-commerce transactions are growing, not least because low cost gives both businesses and consumers a new and powerful channel for information and communication. In turn, business and social science research increasingly focuses on cross-national and cross-cultural Internet marketing (Griffith et al. 2006). This paper examines an aspect of online retailing of increasing potential importance, the Saudi Arabian context.

Consumers now have various online and offline options from which to choose, and, without a compelling reason to choose one retailer over another, they rotate purchases among multiple firms (Bhattacherjee 2001b; Crego and Schiffrin 1995). Despite impressive online purchasing growth rates, evidence strongly indicates that many consumers who search different e-retail sites abandon their purchase intentions. Helping online businesses understand which factors encourage consumers to remain loyal a shopping website is critical because acquiring new customers may cost five times more than retaining existing ones (Crego and Schiffrin 1995; Petriissans 1999).

Increasingly, commercial websites seek to provide useful product information in order to attract potential e-shoppers (Totty 2001). Keeney (1999) pointed out that measuring only actual purchases may be too narrow scope when assessing e-shopping activity, contending that gathering product information is an essential aspect of e-shopping activity. This two-fold definition has since been applied in e-shopping studies (e.g. Chen et al. 2002). We employ a similar definition in order to develop a more holistic view of e-shopping continuance intention.

E-shopping in this study is a combination of both product information search and purchasing activities. For the purpose of this research, we address e-shopping, online shopping, and internet shopping, terms which are frequently used interchangeably. We propose a comprehensive definition which includes all the activities of searching, buying, and selling products and services online. This study focuses mainly on the business-to-consumer (B2C) arena, which has been the source of most online progress and development. The author generalizes the two-fold definition, and rather than evaluating shopping at a particular site (as in Chen et al. 2002), respondents were asked to generalize all e-shopping activities.

Previous research found that gender and age differences significantly affect new technology decision-making processes (Van Slyke et al. 2002; Venkatesh et al. 2000; Spero and Stone 2004). Furthermore, younger people are more likely than older adults to use the internet (Williamson, 2006). However, type of usage varies by age, with younger internet users are more likely to engage in communication and creative activities, but less likely to purchase online than older users (Rainie and Horrigan, 2005). Additionally, youth populations are motivated by status and peer pressure (Spero and Stone 2004). On the other hand, men rely more on their evaluations of the usefulness of the technology. As the Internet is one of the main environments for young people to play, work, learn and communicate (Alreck and Settle 2002; Spero and Stone 2004), greater e-commerce exposure and decision-making power may imply that males and females can attain greater satisfaction from e-shopping. Saudi Arabia has a population of 25 million, highly skewed in terms of age distribution, with 60% under the age of 30 (Middle East Statistics 2007). This age profile is relevant to our topic, as in countries that are further advanced in Internet shopping; much of the growth has been driven by young people.

In summary, researchers are confronted with a multitude of models, and find that they can “pick and choose” constructs, or choose a “favoured” model, largely ignoring the contributions from alternative models (Venkatesh et al. 2003). Theoretical explanations of e-shopping intentions consider several factors. Rogers’ theory of innovation (1995) suggests that consumers re-evaluate acceptance decisions during a final confirmation stage and then decide to continue or discontinue. The decision to continue may be an extension of acceptance behaviour that co-varies with acceptance (e.g. Bhattacherjee 2001a; Davis et al. 1989; Karahanna et al. 1999). The technology acceptance model (TAM), as expanded by Davis et al. (1992) and Gefen (2003), and the expectation confirmation theory (ECT) (Oliver 1980; Bhattacherjee 2001a) have been widely used in research in the industrialized world, but they are less commonly applied to developing countries. Given the complementary nature of TAM and ECT, our research aims to propose a model of e-shopping continuance intentions (Figure 1). This adapts different constructs from the modified TAM and ECT, and considers variance of continuance intentions in the context of e-shopping.

The remainder of this article proceeds as follows. We offer a review of existing literature, and then detail our proposed model, hypotheses, and methodology. After describing the structural equation model and analysis, we provide our results. We conclude with some limitations, conclusions contribution, and recommendations for further research. Finally, we present managerial implications.
2 THEORETICAL BACKGROUND

The TAM (Davis 1989) represents an adaptation of the theory of reasoned action (TRA), tailored to users’ acceptance of information systems. It helps explain determinants of computer acceptance and can explicate user behaviours across a broad range of computing technologies and populations; it also is parsimonious and theoretically justified (Davis et al. 1989). The major determinants are perceived usefulness and ease of use. Perceived usefulness significantly influences attitude formation (Agarwal and Prasad 1999; Dishaw and Strong 1999; Gefen and Keil 1998; Igbaria et al. 1996; Moon and Kim 2001; Taylor and Todd 1995; Venkatesh and Davis 2000), but evidence regarding perceived ease of use remains inconsistent. Furthermore, other researchers (e.g., Bhattachergee 2001a; Ma and Liu 2004; van der Heijden et al. 2003) indicate that the effect of ease of use on acceptance is subject to a certain threshold. That is, with more experience, the impact of ease of use on intention declines. Since our research focuses on continuance intentions, we assume all participants already have e-shopping experience, which implies that other factors may be more important than ease of use.

Expectation confirmation theory (ECT) in turn helps predict consumer behaviour before, during, and after a purchase, in terms of both product and service repurchases (Anderson and Sullivan 1993; Dabhokar et al. 2000; Oliver 1980, 1993; Patterson et al. 1997; Spreng et al. 1996). According to ECT, consumers define their repurchase intentions by determining whether the product or service meets their initial expectations. Shoppers’ comparisons of perceived usefulness versus their original expectation of usefulness influence their continuance intentions (Oliver 1980; Bhattachergee 2001a). If use meets the initial expectation and leaves the consumer satisfied, the consumer experiences positive intentions to repurchase (Oliver 1980; Anderson and Sullivan 1993).

However, ECT ignores potential changes in initial expectations following the consumption experience and the effect of these expectation changes on subsequent cognitive processes (Bhattachergee 2001a). Pre-purchase expectations typically are based on media or others’ opinions, whereas post-purchase expectations derive from usage experience, which appears more realistic (Fazio and Zanna 1981). Following such experience, expectations may increase if consumers believe the product or service is useful or contains new benefits that were not part their initial expectation. Therefore, the research model focuses only on post-acceptance variables and the model assumes e-shopping retailers target users and improves their loyalty to the site. Hence, the post-expectation in the original ECT is represented by perceived usefulness.

Venkatesh and others (2003) suggest that usage and continuance intentions may depend on cognitive beliefs about perceived usefulness. Gefen (2003) also indicates that perceived usefulness reinforces online-shoppers’ continuance intention, such that when a person accepts a new information system, he or she is more willing to modify practices and expend time and effort to use it (Succi and Walter 1999). However, consumers who are dissatisfied with prior use may continue using an e-commerce service if they consider it useful (Bhattachergee 2001a).

The dominant influence of perceived usefulness has led Bhattachergee (2001) to include usefulness in his revised ECT. Furthermore, in a recent study by Premkumar and Bhattachergee (2008), perceived usefulness is found to be the strongest predictor of intention in TAM, and continues to be the strongest predictor of continuance intention (over satisfaction) when TAM is combined with ECT, whereas satisfaction was dominant in ECT (Premkumar and Bhattachergee 2008). The relative dominance of usefulness explains its role as critical driver in continuance decisions (Premkumar and Bhattachergee 2008).

Site quality and good interface design enhance the formation of consumer trust, and if a consumer perceives a vendor’s website to be of high quality, he or she should trust the vendor’s competence, integrity, and benevolence (McKnight et al. 2002a). Gefen and others (2003) integrate trust into the TAM in a B2C e-shopping context and find that trust positively affects consumers’ intention to use a website. Building trust with consumers is an essential mission for e-retailers, because purchasing decisions represent trust-related behaviours (Jarvenpaa et al. 2000; McKnight et al. 2002b; Urban et al. 2000).

Subjective norm can be thought of as composed of two components: societal norm and social influence (Pavlou and Chai 2002). Societal norm refers to the process of adherence to the larger societal fashion, i.e., a large circle of influence. Collectivism, however, refers to the extent to which individuals are integrated into groups, forming their judgments based on group norms (Hofstede and Bond 1988). Other studies replicate Hofstede’s cultural dimension of collectivism, finding that it places greater relative importance on the group's needs and norms than individualism (Triandis 1989). Social influence refers to the extent to which people accept a hierarchical system with an unequal power distribution (Pavlou and Chai 2002), and here is seen to reflect adherence to opinions from family, friends, and peers, i.e., a smaller circle of influence.

Additionally, other studies suggest that individuals place more trust in people similar to themselves and assess trustworthiness on second-hand information (Zucker 1986; Morgan and Hunt 1994; McKnight, Cummings, and Chervany 1998). In highly collectivistic cultures, such as the Arab World, individuals’ actions are typically influenced by the expectations of people around them. Therefore, if e-shopping is a socially desirable behaviour, a person is more likely to e-shop (George 2002).
Since thousands of e-retailers provide similar services, retention of existing users is difficult and important. Attracting and retaining users by providing an enjoyable website has gained researchers’ attention. Enjoyment is significantly associated with total web use, especially for entertainment purposes (Atkinson and Kydd 1997). Moon and Kim (2001) extend TAM, in a parallel with Lin et al. (2005), who extend ECT for a WWW context, indicating that enjoyment and playfulness were an intrinsic motivation factor in acceptance and continuance intention. Furthermore, Childers et al (2001) also find that enjoyment can predict attitude towards e-shopping, just as much as can usefulness. Therefore, we integrated the perceived enjoyment construct into our research model in an attempt to enhance understanding of individuals’ e-shopping continuance or revisit intention.

3 PROPOSED MODEL AND HYPOTHESES

Site Quality

E-shopping web site quality refers to “overall consumer perceptions of the excellence and effectiveness of an e-tailer's product and/or service offering through its virtual store” (Ha and Stoel, 2009). In the online context, website quality is unique and unanimously seen as vital factor during the initial online purchase stage (Yoon, 2002; Koufaris and Hampton-Sosa, 2004). For the first-time buyer with no previous experience with the seller, the initial trust, from the consumers’ perspective, is formed quickly by indirect experience on the basis of available information such as reputation, recommendation, effective communication, and information quality of the seller website (Meyerson et al., 1996; Kim et al., 2003). Website quality has been found as a trust-building lever in the e-purchase context for the first-time consumers (McKnight et al., 2002). Wirtz and Lihtzky (2003) argue that online experiences differ from those found in traditional (physical) shopping, suggesting that consumer evaluation of the quality of online shopping may differ in achieving initial trust, which make it more complicated.

Additionally, shopping online include a number of experiences such as information search, web site browsing/navigation, ordering, payment, customer service interactions, delivery, post-purchase problem resolution, and satisfaction with one’s purchases (Ha and Stoel, 2009). Website quality helps predict behaviour (Business Wire, 1999; Carl 1995; Meltzer, 1999); if the vendor’s website is perceived to be of high quality, the consumer is more likely to depend on the vendor (McKnight et al., 2002). Furthermore, an e-vendors’ site with user-friendly search and navigation functions provide users with a better sense of control over their online shopping experience which in turn may translate into positive feelings about the competence of the vendor. Thus, a well-designed and organized web interface can stimulate initial consumer interest to further explore a site (Menon and Kahn, 2002) and reduce customers’ cost and the time required when searching for product information. Similarly, if a customer perceives a vendor’s website to be of high quality, he/she will be more likely to generate a favorable attitude towards it, demonstrate behavioral control over it (Pavlou and Fygenson, 2006; Jahng, Jain and Ramamurthy, 2007), which in turn, translates into an easier experience for consumers to release the product or service value and feature. On the basis of this research, we therefore predict:

H1.a Perceived Site Quality is positively related to Perceived Usefulness.
H1.b. Perceived Site Quality is positively related to Customer Trust in using e-shopping.

Trust

In general, trust is viewed as a set of specific beliefs dealing primarily with the benevolence, competence and integrity of another party. Benevolence is the belief that the trustee will not act against the trustor, even given the opportunity. Competence is the belief in the trustee’s ability to fulfill the obligations expected by the trustor. Integrity is the belief that the trustee will be honest and will honour its commitments (McKnight et al. 2002a). Also, trust refers to an expectation that others will not behave opportunistically and/or take advantage of a situation (Gefen 2003). If the e-vendor cannot be trusted to behave in accordance with the consumers’ expectations, then there is no reason why consumers should expect to gain any utility or benefit from using the interface (Pavlou 2003; Gefen 2004; Chiu 2009). A lack of trust will, therefore, prevent buyers from engaging in e-shopping (Hoffman et al. 1999). When consumers initially trust their online retailers, and have a perception that e-shopping is beneficial, they will eventually accept that e-shopping is useful (Gefen et al. 2003). In turn, perceived usefulness should occur only for an e-vendor that can be trusted (Festinger 1975). Indeed, prior research shows that trust plays a pivotal role in driving perceived usefulness (Gefen et al. 2003; Pavlou 2003) Thus:

H2. Perceived Trust is positively related to customer perceived Usefulness.
Perceived Usefulness
Perceived usefulness is defined as the extent to which a consumer believes that e-shopping will enhance his or her transaction performance (Chiu 2009). According to Burke (1997), perceived usefulness is the primary prerequisite for mass market technology acceptance. This depends on consumers’ expectations of how technology can improve their lives (Peterson et al. 1997). A website is useful if it delivers services to a customer, but not if the customers’ delivery expectations are not met (Barnes and Vidgen 2000). The importance of perceived usefulness as a key motivating factor derives from the TRA and TAM models, which propose that perceived usefulness affects user acceptance due to reinforcement values of outcomes (Adams, Nelson and Todd 1992; Davis et al. 1989). In a robust TAM, perceived usefulness predicts IT use and intention to use (e.g., Agarwal and Prasad 1999; Gefen and Keil 1998; Gefen and Straub 1997; Igabria et al. 1995), as well as e-commerce adoption (Gefen and Straub 2000) and exhibits a stronger and more consistent relationship with usage than did other variables reported in the literature (Davis et al. 1989). Furthermore, Davis et al. (1989) indicates that individuals shape behavioural intentions towards e-shopping, based largely on a cognitive evaluation of how it will improve their shopping performance. According to Bhattacherjee (2001), and Babin and Babin (2001), an individual is more likely to undertake continued or repurchase intentions when such usage is perceived to be beneficial.

Consumers are likely to evaluate and consider product-related information prior to purchase, and perceived usefulness may, therefore, be more important than the enjoyment (hedonic aspect) of the shopping experience (Babin et al. 1994). Additionally, Davis et al. (1992) identified a positive relationship between perceived usefulness and enjoyment (Chung and Tan 2004). We also posit that a useful online product could make people more likely to experience greater enjoyment at e-store that establishes high quality in terms of marketing and information related attributes (Ha and Stoel, 2009) use and recommend it to their peers. Although it does not affect the importance of friends, perceived usefulness is likely to encourage peers to spread recommendations by word-of-mouth, thereby increasing continuance intentions. Therefore:

H3a. Perceived Usefulness is positively related to increasing customer Enjoyment.
H3b. Perceived Usefulness is positively related to increasing customer Continuance Intention.

Social Pressure
According to Ajzen, (1985) and George (2004), subjective norms to refer to the person's perception of the social pressures that are put on him or her to perform the behaviour in question. Social pressure can affect the attitudes and behaviour of individuals in varying degrees in different societies depending on the culture.

Furthermore, social influences result from subjective norms (social pressure), which relate to individual consumers’ perceptions about the beliefs of other consumers (Venkatesh et al. 2003). Shim and colleagues (2001) find subjective norms to be only marginally significant for e-shopping intentions, whereas Foucault et al. (2005) find a significant link between talking about e-shopping with friends and intention to e-shop.

Researchers such as Hofstede (1994) and Adler (1995), maintain that the individualism-collectivism dimension is an important means of understanding the motives of human action and behaviour (Ali, 1988). This perspective refers to the need to either satisfy personal aspirations or attend to group needs. In highly collectivistic cultures, such as the Arab World, an individual’s actions are typically influenced by the expectations of people around him or her.

Therefore, in terms of the underlying motivation to accept technology or e-shopping, individuals from a collectivistic culture may use e-shopping less because of the potential usefulness or enjoyment, more because of the perceived social pressure from their family and friends. These individuals will conform to the accepted social norm by using the technology to perform e-shopping because of their belief that they will be perceived to be technologically sophisticated by those whom they consider important for their future well-being. Taking that into consideration, social norms also is relevant to enjoyment, because involving consumers in the web sites facilitate e-friendship and enforce e-shopping, which produce similar result of greater enjoyable experience. Thus:

H4a. Perceived Social Norm is positively related to increasing customer Enjoyment and
H4b. Perceived Social Norm is positively related to increasing customer Continuance Intention.

Enjoyment
Perceived enjoyment refers to the extent to which the activity of using an e-commerce website is enjoyable in its own right, beyond the instrumental value (Davis et al. 1992). It is also the extent to which e-shopping is perceived to be personally enjoyable and fun (Chiu 2009). According to self-determination theory, customers are self-determining and intrinsically motivated in e-shopping when they are interested in it or enjoy doing it (Chiu 2009). Because Internet shopping is usually voluntary, and searching and buying are impulsive
behaviours, it seems likely that shoppers’ intentions become stronger if they perceive higher enjoyment from the website (Atkinson and Kydd 1997; Li and Zhang 2005).

Empirical research indicates that the general characteristics of enjoyment and fun relate positively to creativity and an exploratory type of behaviour during interaction with computers (Webster 1992). Research indicates that individuals who experience pleasure and joy from using a computer, and perceive any activity involving use of e-shopping as inherently enjoyable apart from any anticipated improvement in performance, are likely to use it more extensively than others (Davis 1992; Malone 1981; Webster 1989). Davis et al. (1989) found that while perceived usefulness emerged as the major determinant of computer acceptance in the workplace, enjoyment and fun had a significant effect beyond perceived usefulness.

Enjoyment in using a website significantly affects intentions to use (Davis et al. 1992; Igboria et al. 1995; Teo et al. 1999; Venkatesh et al. 2002). Furthermore, Hirschman and Holbrook (1982) suggested that positive consumption, related to emotions in a hedonic context, is likely to lead to very high levels of commitment and repurchase intention. Davis et al.’s (1989) findings support the idea that enjoyment has a significant impact on customer behaviour on the web, such as increasing customer intention to return (Koufaris et al. 2001; Koufaris 2002; Bart et al. 2005; Cyr et al. 2006; Chiu 2009). Thus:

H5. Perceived Enjoyment is positively related to increasing customer Continuance Intention.

4 METHODOLOGY

The methodology used in this research is useful in indicating the potential generalisability of the study findings’ across different cultures and contexts. This research is theory oriented and is concerned with assessing the correspondence between relationships discernible across cases and a broad theoretically based interpretation of social phenomenon. According to Ragin (1987) and Creswell (2003), investigators who use such approach focus their interest on testing hypothesis and propositions derived from theory to determine whether the predictive generalization of the theory hold. This is achieved by conducting a comprehensive analysis that includes Exploratory Factor Analysis (EFA), Structural Equation Modelling (SEM) and invariance analysis for the data collected for the purpose of examining research model generalisability.

The population of interest in this study is Internet users in Saudi Arabia over 18 years old who have previous experience of online shopping. An online survey is used to validate the conceptual model and the proposed research hypotheses. Since Saudi Arabia is a big country with multiple traditions and subcultures, the developed online survey is suitable for targeting online shoppers and collecting data from large geographical areas. Compared with traditional surveys, online surveys offer lower costs, faster responses, and less data entry effort.

Student samples were added to the research because online customers commonly are younger and more highly educated than conventional customers, making a student sample more representative of the online customer population (Al-Diri, Hobbs, and Qahwaji, 2006; Williamson, 2006). Furthermore, adding a student sample may represent the future e-shopping patterns of the population at large. Student samples were extracted from seven universities and colleges, including the five regions of Saudi Arabia.

However, since this research cannot cover such a massive population, a sample was used for the data collection process. One conventional sampling approach is to randomly distribute surveys to members of the general population, since such a sample is frequently a good representation of the population at large. Additionally, the researcher makes attempt to insure that this sample is an accurate representation of some larger group or population by covering the main five regions in Saudi Arabia.

Measures

The measures of the various constructs come from previous literature, adapted to the context of e-shopping. Marketing models often include relationships among sets of constructs. The constructs used in this study are latent, each represented by a number of indicators. A structural equation model (SEM) is developed in order to investigate the relationships between the constructs, which are either formative or reflective in nature. However, since this research uses SEM with (using SPSS AMOS 5.0 software) AMOS software can handle only reflective scales (Bagozzi 1982; Bagozzi and Fornell 1982; Fornell and Bookstein 1982). In a reflective scale, all observed indicators are viewed as being caused by some underlying common dimension or construct (Bagozzi 1982. All online survey items used 1–7 Likert scales, on which 1 indicates strongly disagree and 7 strongly agree. The site quality and trust items come from McKnight and others (2002a, 2002b). The perceived usefulness items derive from Gefen (2003). Perceived enjoyment is a measure from Childers (2001). Shihi and Fang (2004) provide the subjective norm (social pressure) items. The continuance intention items were adapted from Yang and Peterson (2004). Appendix A lists the measurement scales.

A pilot study was carried out in Saudi Arabia to evaluate the effectiveness of the research instrument. The pilot study suggested some clarifications to the survey instruments. Questionnaires were developed initially in English and then translated into Arabic. To avoid any bias, the back-translation method, Brislin’s (1986),
ensures they have the same meaning. The Arabic and English versions were validated and proofread for final approval of the content, wording, and clarity of the questions by native speakers.

**Data analysis**

Survey respondents were people who were actively engaged in Internet use and e-shopping in Saudi Arabia. The sample consists of 465 participants, 68.6% (319) of whom are women and 31.4% (146) of whom are men (Table 1). The domination of women participants in this research is surprising especially both genders have the same accessibility and freedom to participate in the survey. Despite the fact that women comprise 68.6% of the participants in this research, women in Islamic countries are facing several social and cultural obstacles preventing them from engaging in work (Al-maghrabi, 2010). Thus, the revolution in information and communication technology and the nature of the research, online shopping have broadened the work of members of the community particularly that carried out by women, at administrative, social and economic levels. These should be as an indicator for the domination of women participation in the research and reflect the importance of using the internet and online shopping to Muslim women, which may outweigh the importance level for women living in non-Muslim societies. Furthermore, linking the domination of women participants to recent surveys, such as the Pew Internet conducted in 2002 and Sky News conducted in 2002, which indicated that women are now dominant in e-shopping (cited in Cha 2009). In the same context and according to comScore, focusing on expenditures online, women accounted for 58% of e-shopping, whereas men were responsible for 42% between April 2004 and March 2005 (Maguire 2006). Furthermore, most respondents are in the younger age groups, with 74.8% younger than 35 and 25.1% 35 years or older. This age range broadly reflects the profile of the young Saudi population. The vast majority (92.3%) of respondents came from the three main regions in Saudi Arabia: 25.2% from the eastern region, 26.5% from the central region, and 40.6% from the western region.

Younger people have the intention to spend more than older people in Saudi Arabia, as indicated in Table 1. As we demonstrate in Table 2, 208 (59.8%) and 149 (42.8%) of the respondents younger than 35 years old used the Internet in the previous six months to book flights, purchase airline tickets and make hotel reservations, compared to 86 (73.5%) and 69 (59.0%) respondents in the other group of 35 years and older; 102 (29.3%) have purchased fashion products, compared to 18 (15.4%) for 35 and older. Security, quality, payment, and language barrier are considered as an issue when conducting e-shopping in Saudi Arabia, as reported in Table 3.
Table 1: Sample Demographics

<table>
<thead>
<tr>
<th>Question</th>
<th>younger than 35</th>
<th>35 and older</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>114 (32.8%)</td>
<td>32 (27.4%)</td>
</tr>
<tr>
<td>Female</td>
<td>234 (67.2%)</td>
<td>85 (72.6%)</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 18</td>
<td>16 (4.6%)</td>
<td>0</td>
</tr>
<tr>
<td>Between 18-25</td>
<td>130 (37.4%)</td>
<td>0</td>
</tr>
<tr>
<td>Between 26-35</td>
<td>202 (58%)</td>
<td>0</td>
</tr>
<tr>
<td>Between 36-45</td>
<td>0</td>
<td>88 (75.2%)</td>
</tr>
<tr>
<td>Above 46</td>
<td>0</td>
<td>29 (24.8%)</td>
</tr>
<tr>
<td><strong>Education Level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than high school</td>
<td>8 (2.3%)</td>
<td>1 (0.9%)</td>
</tr>
<tr>
<td>High school</td>
<td>49 (14.1%)</td>
<td>8 (6.8%)</td>
</tr>
<tr>
<td>Diploma</td>
<td>43 (12.4%)</td>
<td>12 (10.3%)</td>
</tr>
<tr>
<td>Bachelor</td>
<td>191 (54.9%)</td>
<td>50 (42.7%)</td>
</tr>
<tr>
<td>Post-graduate</td>
<td>57 (16.4%)</td>
<td>46 (39.3%)</td>
</tr>
<tr>
<td><strong>Internet Spending</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>49 (14.1%)</td>
<td>9 (7.7%)</td>
</tr>
<tr>
<td>SR100-1,000 (£100-500)</td>
<td>115 (33.0%)</td>
<td>48 (41.0%)</td>
</tr>
<tr>
<td>SR1,001-5,000 (£501-1,000)</td>
<td>111 (31.9%)</td>
<td>32 (27.4%)</td>
</tr>
<tr>
<td>&gt;SR5,001 (£1,001)</td>
<td>73 (21.0%)</td>
<td>28 (23.9%)</td>
</tr>
<tr>
<td><strong>Income Level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;SR4,000 (£1,000)</td>
<td>87 (25.0%)</td>
<td>5 (4.3%)</td>
</tr>
<tr>
<td>SR4,000-SR6,000 (£1,000-2,000)</td>
<td>56 (16.1%)</td>
<td>13 (11.1%)</td>
</tr>
<tr>
<td>SR6,001-SR8,000 (£2,001-4,000)</td>
<td>46 (13.2%)</td>
<td>12 (10.3%)</td>
</tr>
<tr>
<td>SR8,001-SR10,000 (£4,001-7,000)</td>
<td>33 (9.5%)</td>
<td>9 (7.7%)</td>
</tr>
<tr>
<td>SR10,001-SR15,000 (£7,001-10,000)</td>
<td>42 (12.1%)</td>
<td>27 (23.1%)</td>
</tr>
<tr>
<td>&gt;SR15,001 (&gt;£10,000)</td>
<td>21 (6.0%)</td>
<td>49 (41.9%)</td>
</tr>
<tr>
<td>Dependent on others</td>
<td>63 (18.1%)</td>
<td>2 (1.7%)</td>
</tr>
<tr>
<td><strong>Region</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>East region</td>
<td>100 (28.7%)</td>
<td>17 (14.5%)</td>
</tr>
<tr>
<td>West region</td>
<td>122 (35.1%)</td>
<td>67 (57.3%)</td>
</tr>
<tr>
<td>Central region</td>
<td>93 (26.7%)</td>
<td>30 (25.6%)</td>
</tr>
<tr>
<td>North region</td>
<td>20 (5.7%)</td>
<td>1 (0.9%)</td>
</tr>
<tr>
<td>South region</td>
<td>13 (3.7%)</td>
<td>2 (1.7%)</td>
</tr>
</tbody>
</table>

Table 2: Items purchased online and reason for using the Internet

<table>
<thead>
<tr>
<th>Items purchased in the last six months</th>
<th>younger than 35</th>
<th>Percentage (%)</th>
<th>35 and older</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Books</td>
<td>197</td>
<td>56.6%</td>
<td>65</td>
<td>55.6%</td>
</tr>
<tr>
<td>Music CD, DVD, Videotape</td>
<td>157</td>
<td>45.1%</td>
<td>36</td>
<td>30.8%</td>
</tr>
<tr>
<td>Fashion</td>
<td>102</td>
<td>29.3%</td>
<td>18</td>
<td>15.4%</td>
</tr>
<tr>
<td>Sports equip</td>
<td>67</td>
<td>19.3%</td>
<td>18</td>
<td>15.4%</td>
</tr>
<tr>
<td>Travel reservation and ticketing</td>
<td>208</td>
<td>59.8%</td>
<td>86</td>
<td>73.5%</td>
</tr>
<tr>
<td>Hotel booking</td>
<td>149</td>
<td>42.8%</td>
<td>69</td>
<td>59.0%</td>
</tr>
<tr>
<td><strong>Reason for using the Internet</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information search</td>
<td>320</td>
<td>92%</td>
<td>112</td>
<td>95.7%</td>
</tr>
<tr>
<td>Entertainment</td>
<td>256</td>
<td>73.6%</td>
<td>74</td>
<td>63.2%</td>
</tr>
<tr>
<td>Social communication</td>
<td>245</td>
<td>70.4%</td>
<td>77</td>
<td>65.8%</td>
</tr>
<tr>
<td>Work</td>
<td>194</td>
<td>55.7%</td>
<td>92</td>
<td>78.6%</td>
</tr>
<tr>
<td>Study</td>
<td>44</td>
<td>60.9%</td>
<td>59</td>
<td>50.4%</td>
</tr>
<tr>
<td>Purchasing</td>
<td>284</td>
<td>81.6%</td>
<td>97</td>
<td>82.9%</td>
</tr>
<tr>
<td>Banking</td>
<td>231</td>
<td>66.4%</td>
<td>90</td>
<td>76.9%</td>
</tr>
<tr>
<td><strong>Types of companies trusted</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local companies</td>
<td>42</td>
<td>12.1%</td>
<td>12</td>
<td>10.3%</td>
</tr>
<tr>
<td>International companies</td>
<td>143</td>
<td>41.1%</td>
<td>54</td>
<td>46.2%</td>
</tr>
<tr>
<td>Trust them both the same</td>
<td>163</td>
<td>46.8%</td>
<td>51</td>
<td>43.6%</td>
</tr>
</tbody>
</table>

**Respondent can select more than one option.**
Table 3: Important issues when shopping online

<table>
<thead>
<tr>
<th>Important issues to e-shoppers</th>
<th>younger than 35</th>
<th>Percentage (%)</th>
<th>35 and older</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Security</td>
<td>275</td>
<td>79%</td>
<td>100</td>
<td>85.5%</td>
</tr>
<tr>
<td>Price</td>
<td>204</td>
<td>58.6%</td>
<td>73</td>
<td>62.4%</td>
</tr>
<tr>
<td>Service, delivery</td>
<td>222</td>
<td>63.8%</td>
<td>78</td>
<td>66.7%</td>
</tr>
<tr>
<td>Quality</td>
<td>252</td>
<td>72.4%</td>
<td>81</td>
<td>69.2%</td>
</tr>
<tr>
<td>Payment</td>
<td>220</td>
<td>63.2%</td>
<td>78</td>
<td>66.7%</td>
</tr>
<tr>
<td>Language barrier</td>
<td>157</td>
<td>45.1%</td>
<td>56</td>
<td>47.9%</td>
</tr>
</tbody>
</table>

**Respondents can select more than one option.

The scale reliability and validity were assessed, as well as an examination of the convergent and discriminant validity of the research instruments. The criterion for the minimum loading of 0.70 required for the inclusion of an item within a scale was applied (Fornell and Bookstein 1982). Fornell and Larcker's (1981) criterion for average variance extracted (AVE) of 0.50 or more was applied. The researcher also consider the guidelines recommended by Hair et al. (2006) in determining the relative importance and significance of the factor loading of each item, (i.e., loadings greater than 0.30 are considered significant; loadings greater than 0.40 are considered important; and loadings 0.50 or greater are considered to be very significant). Finally, the criteria suggested by Nunnally (1978) were applied to determine the adequacy of the reliability coefficients obtained for each measure.

Discriminant validity, which assesses whether individual indicators can adequately distinguish between different constructs, is assured if the square root of AVE for each construct is higher than the correlation between the measures of potentially overlapping constructs (Fornell and Larcker 1981). The internal consistency reliabilities, Cronbach’s alphas, (Table 4) are all greater than 0.7, exceeding the recommended values in Bagozzi and Yi’s (1988) guidelines. The correlation matrix in Table 4 indicates that the square root of the AVE of each construct is higher than the corresponding correlation values for that variable, thereby assuring discriminant validity (Fornell and Larcker 1981). Consistent with the recommendation of Bagozzi (1994), Byrne (2001), and Hair et al. (2006), the squared multiple correlation exceeded the cut-off point of 0.7, and the average variance extracted exceeded the cut off-point of 0.5 (Table 5). We thus confirm the convergent reliability and discriminant validity.
Table 4: Convergent and Discriminant Validity and Scale Correlations

<table>
<thead>
<tr>
<th>Model Constructs</th>
<th>Cronbach's alpha</th>
<th>SQ</th>
<th>PU</th>
<th>Trust</th>
<th>SP</th>
<th>Enj</th>
<th>CIU</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQ</td>
<td>0.926</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PU</td>
<td>0.949</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trust</td>
<td>0.949</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SP</td>
<td>0.947</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enj</td>
<td>0.935</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CIU</td>
<td>0.961</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Diagonal elements represent square root of the AVE value

Table 5: Measurement Model

<table>
<thead>
<tr>
<th>Constructs/Indicators</th>
<th>S. Factor Loading</th>
<th>S.E</th>
<th>C.R.</th>
<th>AVE</th>
<th>Squared Multiple Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site Quality (SQ)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.758</td>
</tr>
<tr>
<td>SQ 1</td>
<td>0.918</td>
<td>0.043</td>
<td>24.143</td>
<td>0.84</td>
<td></td>
</tr>
<tr>
<td>SQ 2</td>
<td>0.850</td>
<td>0.042</td>
<td>23.400</td>
<td>0.82</td>
<td></td>
</tr>
<tr>
<td>SQ 3</td>
<td>0.841</td>
<td>0.041</td>
<td>22.731</td>
<td>0.77</td>
<td></td>
</tr>
<tr>
<td>SQ 4</td>
<td>0.872</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived Usefulness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.817</td>
</tr>
<tr>
<td>PU 3</td>
<td>0.906</td>
<td>0.031</td>
<td>31.931</td>
<td>0.82</td>
<td></td>
</tr>
<tr>
<td>PU 4</td>
<td>0.892</td>
<td>0.030</td>
<td>32.097</td>
<td>0.80</td>
<td></td>
</tr>
<tr>
<td>PU 5</td>
<td>0.937</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PU 6</td>
<td>0.880</td>
<td>0.031</td>
<td>30.848</td>
<td>0.87</td>
<td></td>
</tr>
<tr>
<td>Trust</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.814</td>
</tr>
<tr>
<td>Trusting Beliefs Integrity 1</td>
<td>0.903</td>
<td>0.032</td>
<td>31.167</td>
<td>0.82</td>
<td></td>
</tr>
<tr>
<td>Trusting Beliefs Integrity 2</td>
<td>0.897</td>
<td>0.025</td>
<td>38.232</td>
<td>0.80</td>
<td></td>
</tr>
<tr>
<td>Trusting Beliefs Integrity 3</td>
<td>0.889</td>
<td>0.030</td>
<td>30.023</td>
<td>0.79</td>
<td></td>
</tr>
<tr>
<td>Social Pressure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.819</td>
</tr>
<tr>
<td>SP 3</td>
<td>0.757</td>
<td></td>
<td></td>
<td></td>
<td>0.57</td>
</tr>
<tr>
<td>SP 4</td>
<td>0.976</td>
<td>0.057</td>
<td>23.251</td>
<td>0.95</td>
<td></td>
</tr>
<tr>
<td>Social Pressure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.819</td>
</tr>
<tr>
<td>SP 5</td>
<td>0.966</td>
<td>0.057</td>
<td>22.185</td>
<td>0.93</td>
<td></td>
</tr>
<tr>
<td>Enj</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.756</td>
</tr>
<tr>
<td>CIU 1</td>
<td>0.872</td>
<td>0.026</td>
<td>34.199</td>
<td>0.76</td>
<td></td>
</tr>
<tr>
<td>CIU 2</td>
<td>0.938</td>
<td>0.020</td>
<td>47.621</td>
<td>0.88</td>
<td></td>
</tr>
<tr>
<td>CIU 3</td>
<td>0.975</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CIU 4</td>
<td>0.946</td>
<td>0.020</td>
<td>50.386</td>
<td>0.90</td>
<td></td>
</tr>
</tbody>
</table>
5 STRUCTURAL EQUATION MODEL

As the first step in testing the proposed model, we estimate the goodness-of-fit indices (Figure 1). Bentler and Bonnett (1980) suggest the Chi-square/Degrees-of-freedom (CMIN/DF) ratio as an appropriate measure of model fit, which should not exceed 5 (Bentler 1989).

SEM with AMOS 5.0 software determines additional goodness-of-fit indices, including Critical Ratio (CR), Chi-square (CMIN), Degrees-of-Freedom (df), Chi-square/Degrees-of-freedom (CMIN/DF), Root mean square residual (RMR), Root mean square error of approximate (RMSEA), Goodness-of-fit (GFI), and Comparative fit index (CFI). In general, GFI and CFI greater than 0.90 indicate good model fit (Bentler 1989). As illustrated in Table 6, all hypotheses are statistically significant and supported, with critical ratios ranging from 17.261 to 4.594, which are greater than 1.96 and thus indicate acceptable results (Hair et al. 2006; Holmes-Smith 2000). The goodness-of-fit indices of the proposed model of continuance intentions fit the data reasonably well, as confirmed by the chi-square CMIN=656.880, df=236, CMIN/DF=2.783, RMR=0.176, GFI=0.897, CFI=0.966, and RMSEA=0.062 (Table 7).

Table 6: Regression Weights

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Paths</th>
<th>Standardized Regression Weights (B)</th>
<th>Standard Error S.E.</th>
<th>Critical Ratio C.R.</th>
<th>P Value</th>
<th>Hypotheses Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1 a</td>
<td>Trust</td>
<td>SQ</td>
<td>0.698</td>
<td>0.042</td>
<td>15.778</td>
<td>***</td>
</tr>
<tr>
<td>H1 b</td>
<td>PU</td>
<td>SQ</td>
<td>0.420</td>
<td>0.052</td>
<td>7.859</td>
<td>***</td>
</tr>
<tr>
<td>H2</td>
<td>PU</td>
<td>Trust</td>
<td>0.379</td>
<td>0.055</td>
<td>7.077</td>
<td>***</td>
</tr>
<tr>
<td>H4 a</td>
<td>Enj</td>
<td>SP</td>
<td>0.360</td>
<td>0.039</td>
<td>7.781</td>
<td>***</td>
</tr>
<tr>
<td>H3 a</td>
<td>Enj</td>
<td>PU</td>
<td>0.555</td>
<td>0.041</td>
<td>10.979</td>
<td>***</td>
</tr>
<tr>
<td>H4 b</td>
<td>CIU</td>
<td>SP</td>
<td>0.216</td>
<td>0.046</td>
<td>5.250</td>
<td>***</td>
</tr>
<tr>
<td>H5</td>
<td>CIU</td>
<td>Enj</td>
<td>0.455</td>
<td>0.067</td>
<td>8.963</td>
<td>***</td>
</tr>
<tr>
<td>H3 b</td>
<td>CIU</td>
<td>PU</td>
<td>0.282</td>
<td>0.051</td>
<td>6.037</td>
<td>***</td>
</tr>
</tbody>
</table>

Table 7: Goodness-of-fit indices

<table>
<thead>
<tr>
<th>Confirmatory Factor Analysis CFA (Goodness-of-fit measure)</th>
<th>Acceptable Values</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-Square CMIN</td>
<td>NA</td>
<td>656.880</td>
</tr>
<tr>
<td>Degree of freedom</td>
<td>NA</td>
<td>236</td>
</tr>
<tr>
<td>CMIN/DF</td>
<td>Chi square/ df ≤5 (Bentler and Bonnett, 1989)</td>
<td>2.783</td>
</tr>
<tr>
<td>P value</td>
<td>p≤0.05 (Hair et al., 2006)</td>
<td>0.000</td>
</tr>
<tr>
<td>Root mean square residual (RMR)</td>
<td>No established thresholds (the smaller the better) (Hair et al., 2006)</td>
<td>0.176</td>
</tr>
<tr>
<td>Goodness-of-fit (GFI)</td>
<td>≥ 0.90 (the higher the better) (Hair et al., 2006)</td>
<td>0.897</td>
</tr>
<tr>
<td>Comparative fit index (CFI)</td>
<td>≥ 0.90 (Hair et al., 2006)</td>
<td>0.966</td>
</tr>
<tr>
<td>Root mean square error of approximate (RMSEA)</td>
<td>&lt; 0.08 (Hair et al., 2006)</td>
<td>0.062</td>
</tr>
<tr>
<td>Normal fit index (NFI)</td>
<td>≥ 0.90 (Hair et al., 2006)</td>
<td>0.943</td>
</tr>
<tr>
<td>Incremental fit index (IFI)</td>
<td>≥ 0.90 (Hair et al., 2006)</td>
<td>0.960</td>
</tr>
<tr>
<td>Relative fit index (RFI)</td>
<td>≥ 0.90 (Hair et al., 2006)</td>
<td>0.933</td>
</tr>
</tbody>
</table>

Next, we examine the regression weights (path significance) of each relationship in our research model and the variance explained (R2 value) by each path. The AMOS software reports the standardized regression weights and critical ratio for each path (Table 5). The hypothesized associations are strongly significant at p = ***. Perceived enjoyment is the strongest predictor of continuance intention (B = 0.455), followed by perceived usefulness (B = 0.282), and then social pressure (B = 0.216). The model explains 55% of the variance in continuance intentions (Figure 1).
6 INVARIA NCE ANALYSIS

As has been demonstrated in Table 1, due to a higher-than-average percentage of young consumers (35 years old and younger in this research), it is considered important to conduct age invariance analysis. Online customers commonly are younger and more highly educated than conventional customers, making a young consumer more representative of the online customer population (OECD 1998). Additionally, users who range in age from their teens through their 30s are particularly attractive targets for sellers of goods and services and are also more likely to purchase products or services online than are older consumers (Akhter 2003; He and Mykytyn 2007).

When comparing cultures or groups, research participants may not recognize the same meaning and understanding of survey items. Scholars have emphasized the importance of minimizing possible research biases when comparing cultures or groups (Yi et al. 2008). To minimize bias, we assessed the measurement invariance (equivalence) across the groups to consider the constructs’ factorial invariance (Cheung et al. 1999).

Invariance analysis indicates whether any differences occur between the two age groups; young and old. The factorial analysis reveals whether young and old conceptualize the model constructs the same way. If we find an age effect on the measurement invariance of the construct and the score of the group analysis is significant, the construct measurement differs for the two groups, and they cannot be compared directly. Therefore, the factorial invariance (metric equivalence) for both age groups were assessed (Hair et al., 2006). The CMIN=1206.661, df=468, CMIN/DF=2.578, RMR=0.123, GFI=0.906, CFI=0.971, and RMSEA=0.041, indicate satisfactory goodness-of-fit indices across the groups (Table 8).

Table 8: Goodness-of-fit indices (Younger than 35 – 35 and Older)

<table>
<thead>
<tr>
<th>Confirmatory Factor Analysis CFA (Goodness-of-fit measure)</th>
<th>Acceptable Values</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-Square CMIN</td>
<td>NA</td>
<td>1206.661</td>
</tr>
<tr>
<td>Degree of freedom</td>
<td>NA</td>
<td>468</td>
</tr>
<tr>
<td>CMIN/DF</td>
<td>Chi square/ df ≤5 (Bentler and Bonnett, 1989)</td>
<td>2.578</td>
</tr>
<tr>
<td>P value</td>
<td>p&lt;0.05 (Hair et al., 2006)</td>
<td>0.000</td>
</tr>
<tr>
<td>Root mean square residual (RMR)</td>
<td>No established thresholds (the smaller the better) (Hair et al., 2006)</td>
<td>0.123</td>
</tr>
<tr>
<td>Goodness-of-fit (GFI)</td>
<td>&gt; 0.90 (the higher the better) (Hair et al., 2006)</td>
<td>0.906</td>
</tr>
<tr>
<td>Comparative fit index (CFI)</td>
<td>&gt; 0.90 (Hair et al., 2006)</td>
<td>0.971</td>
</tr>
<tr>
<td>Root mean square error of approximate (RMSEA)</td>
<td>≤ 0.08 (Hair et al., 2006)</td>
<td>0.041</td>
</tr>
<tr>
<td>Normal fit index (NFI)</td>
<td>≥ 0.90 (Hair et al., 2006)</td>
<td>0.916</td>
</tr>
</tbody>
</table>
Assuming the unconstrained model is correct, compared with constraining all factorial paths, the results across groups indicate changes in df (Δdf) = 18, chi-square (Δχ²) = 31.677, and p = 0.115, which is greater than Byrne’s (2001) 0.05 cut-off. Tests of measurement invariance in which we freely estimate the other loadings appear in Table 9. According to the results, changes in the chi-square and df are insignificant (p = 0.115). Therefore, the goodness-of-fit indices are comparable across age groups, supporting the invariance of the unconstrained and constrained models. We thereby establish metric equivalence and can proceed in our analysis to regression paths.

Table 9: Invariance analysis (Younger than 35 – 35 and Older)

<table>
<thead>
<tr>
<th>Model</th>
<th>Δdf</th>
<th>Δχ²</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measurement weights</td>
<td>16</td>
<td>31.677</td>
<td>.115</td>
</tr>
<tr>
<td>Structural weights</td>
<td>8</td>
<td>13.244</td>
<td>.369</td>
</tr>
</tbody>
</table>

The coefficient (regression paths) invariance analysis determines if young and old respondents have the same relationships with the same variables in the research model. The findings in Table 9 suggest coefficient invariance among age groups across the research model with all regression paths constrained (Δχ² = 13.244, Δdf = 9, p = 0.369). Even though the structural weight in Table 9 shows invariance among the groups, the author realised the need to minimize the possibility of research biases in the two age groups (younger than 35 years old and 35 and older) analysis among constructs relationship (path) that may arise from the data strength and weakness when applied to every constructs’ path. Therefore, the author decided to test each factorial path separately, while the rest of the paths are freely estimated across the two age groups to look for any non-invariance path.

The findings in Table 10 indicate that young and old age group are non-invariant in certain relational paths. Therefore, in this case testing the individual path has demonstrated to be a more rigorous test for non-invariance. Differences in their intention in the context of e-shopping continuance can be observed in the different coefficients in the social pressure % enjoyment link. Specifically, in the comparisons of the young with old (Δχ² = 5.609, p = 0.018), the influence of social pressure is greater for the younger sample than for the older sample.

Table 10: Structural Factorial of theoretical construct (structure Invariant – Regression) for the age sample (Younger than 35 – 35 and Older)

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Paths</th>
<th>Younger than 35 Sample</th>
<th>35 and older Sample</th>
<th>Invariance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>RW</td>
<td>C.R.</td>
<td>P value</td>
<td>RW</td>
</tr>
<tr>
<td>H4 a</td>
<td>Enj</td>
<td>&lt;---</td>
<td>SP</td>
<td>0.186</td>
</tr>
</tbody>
</table>

Age was found to have latent mean non-invariance for the research constructs (Table 11). This difference between younger than 35 and 35 and older, in the context on continuance Internet shopping, resulted from the differences of the latent mean of trust, enjoyment, and continuance intention. The standardized latent mean of trust, enjoyment, and continuance intention in the younger than 35 sample is estimated to be: trust = 0.278; enjoyment = 0.401; continuance intention = 0.217, with a standard error (SE) of: trust = 0.097; enjoyment = 0.095; continuance intention = 0.097, and CR (t-value) of: trust = 2.875; enjoyment = 4.209; continuance intention = 2.237. The result is significant (p>0.05, trust, p=0.004; enjoyment p=***; continuance intention p=0.025). Thus, trust is 0.278 more (higher) among the younger sample than it is among older sample. The same applies for enjoyment with 0.401 and continuance intention with 0.217, higher among the younger sample than it is among the older sample.
Table 11: Means: (Younger than 35 - Default model) - for the age sample (Younger than 35 – 35 and Older)

<table>
<thead>
<tr>
<th></th>
<th>Latent mean</th>
<th>S.E.</th>
<th>C.R.</th>
<th>( P ) Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>PU</td>
<td>0.096</td>
<td>0.092</td>
<td>1.037</td>
<td>0.300</td>
</tr>
<tr>
<td>Trust</td>
<td>0.278</td>
<td>0.097</td>
<td>2.875</td>
<td>0.004</td>
</tr>
<tr>
<td>Enj</td>
<td>0.401</td>
<td>0.095</td>
<td>4.209</td>
<td>***</td>
</tr>
<tr>
<td>CIU</td>
<td>0.217</td>
<td>0.097</td>
<td>2.237</td>
<td>0.025</td>
</tr>
<tr>
<td>SQ</td>
<td>0.070</td>
<td>0.091</td>
<td>0.769</td>
<td>0.442</td>
</tr>
<tr>
<td>SP</td>
<td>0.149</td>
<td>0.091</td>
<td>1.644</td>
<td>0.100</td>
</tr>
</tbody>
</table>

7 DIRECT AND INDIRECT EFFECT ANALYSIS

SEM distinguishes between direct, indirect, and total effects (Jöreskog and Sörbom, 2001). The direct effect is the relationship linking two constructs with a single arrow between them (Hair et al., 2006). On the other hand, the indirect effect is a sequence of relationships with at least one mediating constructs involved (Hair et al., 2006). The sum of the indirect and direct relationships between the constructs will constitute the total effect (Hair et al., 2006).

Both the indirect effect and the total effects can facilitate understanding of important questions and relationships that are not addressed when investigating the direct effect alone (Kline, 1998). The direct and indirect effects (Hair et al. 2006) in Table 12 reveal that the greatest total influences of direct and indirect (mediated) effects on continuance intentions come from enjoyment (0.749 for the 35 years and older, and 0.705 for younger than 35 years). The next greatest influences derive from site quality (0.624 for the 35 years and older, and 0.620 for younger than 35 years). Additionally, social pressure has the second highest direct influence on continuance intention (0.215 for younger than 35 years and 0.212 for 35 years and older). Therefore, site quality, trust, perceived usefulness, enjoyment, and social pressure all play significant direct and indirect roles for continuance intentions regarding e-shopping for both age groups.

Table 12: Direct and Indirect influences on CIU

<table>
<thead>
<tr>
<th>Construct</th>
<th>CIU (Younger than 35)</th>
<th>CIU (35 and older)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Direct</td>
<td>Indirect</td>
</tr>
<tr>
<td>SQ</td>
<td>------</td>
<td>0.620</td>
</tr>
<tr>
<td>TRUST</td>
<td>-------</td>
<td>0.318</td>
</tr>
<tr>
<td>PU</td>
<td>0.211</td>
<td>0.215</td>
</tr>
<tr>
<td>SP</td>
<td>0.215</td>
<td>0.131</td>
</tr>
<tr>
<td>ENJ</td>
<td>0.741</td>
<td>-------</td>
</tr>
</tbody>
</table>

\( R^2 = 0.55 \)

8 DISCUSSION

This research provides an integrated conceptual model that clarifies the theoretical problems of continuance e-shopping intentions and age behavioural differences in Saudi Arabia. All hypotheses are confirmed, demonstrating that perceived enjoyment, perceived usefulness, and social pressure are the main determinants of continuance intentions, explaining 55% of continuance e-shopping intentions. However, enjoyment is most influential (see Table 6; SRW = 0.455, C.R. = 8.963), followed by perceived usefulness (SRW = 0.282, C.R. = 6.037), and then social pressure (SRW = 0.216, C.R. = 5.250). These findings are consistent with previous research (e.g., Bhattacharjee 2001a; Childers 2001; Davis et al. 1989; George 2002; Shih and Fang 2004; Teo et al. 1999; Venkatesh et al. 2003). Enjoyment, perceived usefulness, and social pressure have positive influences (direct or indirect) on consumers’ continuance e-shopping intentions.

The measurement weights of the younger and older groups are consistent and similar. However, the social pressure \( \rightarrow \) enjoyment path is non-invariant between the age groups. That is, younger people are more influenced by evaluations of the opinions of others (young RW = 0.186, C.R. = 7.039; old RW = 0.322, C.R. = 5.694; \( \Delta \gamma^2 = 5.609, p = 0.018 \)). This may reflect the general tendency of more mature people to rely on their own experience; thus young people are more influenced by peer groups (Spero and Stone 2004).

Site quality and trust are strong antecedents of perceived usefulness (site quality SRW = 0.420, C.R. = 7.859; trust SRW = 0.379, C.R. = 7.077). Both site quality (0.620) and trust (0.318) have large indirect effects on continuance intentions (Table 12). These findings are consistent with the collectivist culture of Saudi Arabia, where people tend to trust only those within their in-group (Yamagishi and Yamagishi 1994).

The latent means of trust, enjoyment and continuance intention are higher among the younger population (trust p=0.004; enjoyment p<0.001; continuance intention to use p=0.025). Thus, trust is 0.278 higher among the younger sample than the older sample. The same goes for enjoyment with 0.401 and continuance intention to
9 RESEARCH LIMITATIONS

Typical of most survey research, this study suffers some limitations. First, the novelty associated with using an online survey indicates that empirical data may lead to novelty effect bias. Second, the online survey was posted, with permission, on Saudi universities’ online forums. However, the survey may suffer a non-response bias, but there is no systematic way to determine the response rate in an online survey. Although the survey attracted a large sample of participants (928 in the first two months) and covers all three main commercial geographical regions in Saudi Arabia, it may still suffer from the biases that are inherent to survey studies. Conversely, this survey can claim to be more realistic than typical laboratory experiments, as it addresses real consumers and real shopping issues, outweighing the disadvantages of the method.

The adoption of e-shopping and online revisit intention might also be influenced by the product or service itself (Klein 2003). Since this study has not focused specifically on any particular products or e-retailers, it is not known to what extent our research results may be extended to specific products or services. Without referring to the nature of the product, participants in this research have used their Internet shopping preferences to answer the questionnaire. Certain products or services on a website may be relatively simple, low-touch products that require relatively less trust, have some unique features (e.g., web-based, graphics-rich, interactive interface), purpose (e.g., learning new concepts), or more complex high-touch products for which trust issues are expected to be more dominant. Such related differences may alter some of the path effects reported in our study. Therefore, future research needs to assess the generalisability of the model for the purchase of relatively simple low-touch or for more complex high-touch products, including applicability to other related online industries, such as financial services and airlines industries.

Furthermore, Girard, Korgaonka, and Silverblatt (2003) find that e-shopping preferences depend on product types. Men are more likely to shop online for utilitarian experience goods (e.g., cell phones, computers), whereas women shop online for hedonic experience goods, such as perfume and clothing. Our study focuses on consumers who had previously purchased from an e-vendor’s website, without any preferences for any particular industry. The results may differ from those of consumers who have never purchased from a site other than a preferred one. Thus, the generalisability of results to potential consumers of an e-vendor that have never visited or have never purchased from the e-vendor’s website is not immediately obvious and, therefore, warrants further investigation.

10 CONCLUSIONS, CONTRIBUTION AND AREAS FOR FURTHER RESEARCH

This study was motivated by prior research indicating that many consumers who search different online retail sites abandon their purchase intentions. In order to study the important, little-researched area of continuance e-shopping, we adapted the TAM and ECT. By integrating these and deriving our own model, we have contributed to an understanding of the factors that encourage consumers to continue their e-shopping intention. A key conclusion from this study is the importance of both the direct and indirect effects of age differences in Saudi Arabia, which should be considered when developing any website and marketing strategy for e-retailing.

The latent mean findings reveal that younger consumers have higher continuance intention. Akhter (2003) suggests that younger people are more likely than older consumers to purchase using the Internet. These contributions are in line with previous research that young people are more likely than older adults to use the Internet, which represent one of the main environments for young people to play, learn, communicate, and share experiences (Alreck and Settle 2002; Spero and Stone 2004; Williamson, 2006; Rainie and Horrigan, 2005). Additionally, previous researchers demonstrated that consumers who experience pleasure and joy from using e-shopping are likely to use it more extensively than others (Davis 1992; Malone 1981; Webster 1989). Therefore, managers should work to increase the level of trust, enjoyment, and continuance intention among older consumers.

From a theoretical standpoint, these research results contribute to existing literature in several ways. First, we enhance e-shopping literature by providing insights into the factors that seem to affect e-shopping continuance intentions. We also posit that enjoyment, social pressure, and perceived usefulness have direct and indirect effects on continuance intention. The greater positive indirect effects of site quality and trust suggest that e-retailers should increase the positive perceptions of trust and site quality to make their e-shopping environment more useful and enjoyable. For example, if a new customer is more likely to judge a website by its appeal, reflecting its quality and trustworthiness rather than its usability, then e-retailers need to increase the appeal of their sites. Furthermore, e-retailers should emphasise their trustworthiness by, for example, marketing their robust security and policies measures, adding a Frequently Asked Questions section and including statements such as “secure servers” (Gehrke and Turban 1999).
Continuance intention to use a technology such as e-shopping is not only determined by social pressure, but also by users’ needs to build relationships with others inside the online social communities (Schau and Gilly 2003). According to Wilksa (2003 p.459), the customer’s relation to technology would impact consumers’ lifestyles. To have a significant effect on e-shopping continuance intentions, any e-shopping environment should encourage a shopping experience that is useful and enjoyable. Customers’ involvements in the product design process are likely to be perceived as more enjoyable. For example, Nike online shoppers (www.nike.com) can customize shoes, colours, styles, and even select a name or message. Another example involves e-retailers that provide online customer services through modern communication tools, such as real time chat or Twitter (see Zappos, www.zappos.com). Similarly, communication on useful offers, as is done with social networking sites such as Osoyou (www.osoyou.com), is likely to be perceived as a useful way of sharing with friends and relatives.

Second, the results support previous research that perceived usefulness reflects the utilitarian aspects of e-shopping, whereas perceived enjoyment reflects its hedonic aspects. In our study, enjoyment has the strongest effect on e-shopping continuance intentions, confirming that enjoyment in an e-shopping environment is important and the effect is direct. For instance, if an individual “feels good” about an online activity, the individual is more likely to engage in it and shape intention to revisit e-shopping. Nevertheless, combining the direct and indirect effects indicates that perceived usefulness has a stronger total effect on e-shopping continuance intentions, supporting previous findings. Usefulness is an important criterion for consumers when they select online stores and can increase their satisfaction. Consumers may continue using a useful e-commerce service, even if they are dissatisfied with it (Bhattacherjee 2001a).

Third, few prior studies use SEM as their methodological approach in Saudi Arabia, and even fewer apply invariance analysis to verify age behavioural differences. This study addresses this knowledge gap for a unique culture.

Users in our study have different experiences based on whether they trust local or international e-retailers, and other related issues when shopping online. 41.1% for young users and 46.2% for old users trust international e-retailers, compared to 11.1% for young users and 10.3% for old users for the local retailers. Though not discussed in this research, the type of e-retailer (local or international), the mode of payment, online security, and language barriers may constrain the research model constructs on continuance e-shopping intention. Since prior research in the context of e-shopping in Saudi Arabia has not distinguished between these constraints, further research is recommended to explore such distinction.

11 RESEARCH MODEL GENERALIZABILITY

Hofstede (1984) argues with reference to several contexts that the popular theories are culture-bound. The theoretical basis of this study is the extended TAM, which is derived from the TRA model, and the extended ECT. Both extended TAM and ECT have adapted other constructs to measure continuance intention (Agarwal and Prasad 1999; Dishaw and Strong 1999; Gefen and Keil 1998; Moon and Kim 2001; Venkatesh and Davis 2000; Premkumar and Bhattacherjee 2008; Lin, Wu and Tsai 2005).

The research model in this study confirms that online shopping involves hedonic as well as utilitarian value. Additionally, social pressure and social influence, play an important role in Saudi Arabia. As expected based on current IS literature, perceived usefulness (utilitarian) and perceived enjoyment (hedonic) value are influential indicators of intention and revisit intention (Davis et al., 1992; Van der Heijden, 2004; Lin, Wu and Tsai, 2005; Donovan and Rossiter 1982; Al-maghraibi, Dennis, and Halliday, 2011). Shim et al. (2001) consider social pressure only marginally significant for e-shopping intentions, whereas Foucault et al. (2005) confirm a significant link between talking about e-shopping with friends and intention to e-shop. However, TAM omits subjective norms, primarily because Davis claimed that they are not significant in explaining behavioural intentions (Davis et al., 1989). The similarity and distinction in the findings between this research and literatures could be attributed to cultures, which suggest that information technology and management practices should be modified for different cultural contexts.

The Arab World culture, including Saudi Arabia, is dominated by high collectivism, i.e., an individual’s beliefs depend on the social norms of the group (Kluckhorn and Strodtbeck, 1961). Additionally, other studies suggest that individuals place more trust in people similar to themselves and assess trustworthiness based on second-hand information and on stereotypes (McKnight et al., 1998; Morgan and Hunt, 1994; Zucker, 1986). In a similar vein, recent studies in the marketing literature have also confirmed the importance and dynamics of social pressure on consumer behaviour. For instance, Takada and Jain (1991) have found that the diffusion of consumer goods in South Korea and Taiwan is directly influenced by social value.

Prior research indicates that consumers in all shopping channels shop for both utilitarian and hedonic outcomes (Childers et al., 2001), which is also consistent with previous research that social influence plays an important role in collectivist cultures (Foucault et al. 2005; Anandarajan, 2002). The author of this research suggests that the research model and the results of this study could be generalized into other contexts in general, Arab countries in particular, and Gulf Cooperation Council countries (GCC) in specific. This is because Arab
countries are classified by Hofstede (1984) as collectivist culture. The generalization of the research model to the Gulf Cooperation Council countries is more likely to be applicable because of having parallels with Saudi Arabia in sharing similar values, tribes, relatively young population, and rapid economic growth rates (Nations Online, 2008).

Additionally, the growth of disposable family income in and distribution of the spending within families in GCC countries are similar. Shopping is done by good value of the economic potential available, on the experience of each person, on the social scale of the individual and on the peer groups and sub-groups that individual mixed in, specially that most of the GCC countries have been ranked in the top 30 in the 2010 Kearney Global Retail Development Index for retail attractiveness (Kearney GRDI, 2010).

However, the author in this research suggests that the external validity (generalisability) of TAM and ECT in other cultures is questionable. The author recommends that the research model should be further tested in other cultural contexts to show the potential generalisabilities, particularly cultures that may have similarities with Saudi Arabia.

12 MANAGERIAL IMPLICATIONS

This study provides managers with useful and important information to encourage shoppers to complete their online purchases, and we suggest that this should feed into website planning and marketing strategies. Managers and site developers should focus on the quality and informative content, which reflect usefulness and enjoyment. Managers also should not underestimate the power of the technology and the Internet, especially in a young population Continuance shopping is important, because customers who fail to return reduce the firm’s customer base and its revenues, and may well require substantial expenditure to attract them back from competitors. Managers cannot ignore either direct (perceived usefulness, enjoyment, social pressure) or indirect (site quality, trust) influences on continuance intention. The findings indicate that both young and old respondents have concerns about trusting local e-shopping sites. Managers are advised to enhance website security, content and design quality, and add a dual language feature, in order to retain consumers and build long term, trusting relationships.

Online retailers can build positive word of mouth to enhance the perceptions of friends and family members of current customers regarding the website’s usefulness, site quality, interactivity, and enjoyment, thus increasing perceptions of the firm’s trustworthiness. The research findings confirm that young people spend more time and money in e-shopping, and trust Internet shopping more than do older people. Therefore, managers should communicate the product benefits and values, and rely on young people to spread positive word of mouth and recommend the product. Peer pressure would engage and encourage consumers to enjoy shopping online, leading to more intention to e-shop. Use should be made of social networks such as Facebook, Twitter, and many more, to enhance the perceptions of family, friends, potential and actual customers of their websites’ usefulness and trustworthiness. This is more important among young consumers as they are making the online world their environment, developing personal relationships, playing, learning, and spreading experiences.

Based on the current research findings, understanding the utilitarian and hedonic roles of e-shopping would enable marketing managers to increase the scope of e-shopping. For example, interactive activities such as an inside look at an airplane in a 360˚ view, selecting your travel seat using virtual model technology, or trying-on clothing can provide enjoyment in addition to facilitating product evaluation. Sophisticated technologies used in e-shopping can provide e-retailers with many techniques that will increase e-shopping usefulness and enjoyment, resulting in the continuity of loyal e-shoppers. Amazon’s technique (‘users who bought this item were interested in this item as well’) is probably the most famous example using customer profiles. Thus, given the current research findings, e-retailers should ensure that they are providing sufficient hedonic value to online shoppers before attempting to focus on other aspects of their website development.

APPENDIX A

Questionnaire (Measurement indicators)
Perceived Usefulness (Strongly disagree . . . Strongly agree)
Adapted from (Gefen et al., 2003).
- The website I use for my online shopping is useful for searching and purchasing.
- The website I use for my online shopping improves my performance in searching and purchasing.
- The website I use for my online shopping enables me to search and purchase faster.
- The website I use for my online shopping enhances my effectiveness in searching and purchasing.
- The website I use for my online shopping makes it easier to search for and purchase.
- The website I use for my online shopping increases my productivity in searching and purchasing.
Trust (Strongly disagree . . .Strongly agree)  
Adapted from (McKnight et al., 2002b).

Trust Beliefs (Benevolence)  
- I believe that the website I use for my online shopping would act in my best interest.  
- If I required help, the website I use for my online shopping would do its best to help me.  
- The website I use for my online shopping is interested in my well-being, not just its own.

Integrity  
- The website I use for my online shopping is truthful in its dealings with me.  
- I would characterize the website I use for my online shopping as honest.  
- The website I use for my online shopping would keep its commitments.  
- The website I use for my online shopping is sincere and genuine.

Competence  
- The website I use for my online shopping is competent and effective in providing online business.  
- The website I use for my online shopping performs its role of giving shopping advice very well.  
- Overall, the website I use for my online shopping is a capable and proficient Internet shopping provider.  
- In general, the website I use for my online shopping is very knowledgeable about its service.

Trusting Intentions (Willingness to Depend)  
- When an important shopping issue or problem arises, I would feel comfortable depending on the information provided by the website I use for my online shopping.  
- I can always rely on the website I use for my online shopping in a tough shopping situation.  
- I feel that I could count on the website I use for my online shopping to help with a crucial shopping problem.  
- If I had a challenging shopping problem, I would want to use the website I use for my online shopping again.

Perceived Enjoyment (Strongly disagree . . .Strongly agree)  
Adapted from (Childers et al., 2001).  
- Shopping online in this website would be fun for its own sake.  
- Shopping online in this website would make me feel good.  
- Shopping online in this website would be boring.  
- Shopping online in this website would involve me in the shopping process.  
- Shopping online in this website would be exciting.  
- Shopping online in this website would be enjoyable.  
- Shopping online in this website would be uncomfortable.  
- Shopping online in this website would be interesting.

Perceived Site Quality (Strongly disagree . . .Strongly agree)  
Adapted from (McKnight et al., 2002b).  
- Overall, this website worked very well technically.  
- Visually, this website resembled other sites I think highly of.  
- This website was simple to navigate.  
- On this website, it was easy to find the information I wanted.  
- This website clearly showed how I can contact or communicate with online shopping customer service.

Social Pressure (Strongly disagree . . .Strongly agree)  
Adapted from (Shine and Fung, 2004).  
- Most people who are important to me would think that using the website to shop online is a wise idea.  
- Most people who are important to me would think that using the website to shop online is a good idea.  
- Most people who are important to me would think I should use the website to shop online.  
- My family who are important to me would think that using the website to shop online is a wise idea.  
- My family who are important to me would think that using the website to shop online is a good idea.
• My family who are important to me would think I should use the website to shop online.

**Continuance Intention** (Strongly disagree . . .Strongly agree)

Adapted from (Yang and Peterson, 2004).

- I say positive things about the website I use for my online shopping to other people.
- I would recommend the website I use for my online shopping to those who seek my advice about such matters.
- I would encourage friends and relatives to use the website I use for my online shopping.
- I would post positive messages about the website I use for my online shopping on some Internet message board.
- I intend to continue to do business with the present website.
- I intend to do more business with the present website.

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Book Review: Temporal Structures in Individual Time Management: Practices to Enhance Calendar Tool Design

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Book Information

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BOOK REVIEW

Time is an invaluable and non-renewable resource in human life. Each one of us has 1440 minutes on one’s disposal each day. Since we cannot create more time; we must make the best use of the time we are bestowed upon. Globalization, emphasis on quality, cut-throat competition, multiple roles, unlimited expectations, changed demographics and demands of the ever-dynamic environment have put the pressure on the individual. The survival, success and happiness of the individual thus are a function of his use of time management strategies and his ability. In this tough race, fast and steady is going to win the race to have a peaceful nap in the end and then to again get going.

This book, “Temporal Structures in Individual Time Management: Practices to Enhance Calendar Tool Design” discusses time in terms of concepts, methodologies, techniques, tools and perspectives which are essential for understanding individual time management strategies, with a strong focus on personal temporal structure usage involving calendar tools. The book provides evidence and insights for researchers and practitioners to enhance the current electronic calendar system design and implementation. The book deals with personal temporal structure usage involving calendar tools in great details so that a person can make the best use of time.

The author discusses the temporal designs of work (8.00 a.m. to 5.00p.m. with an hour-long lunch break in between, for example) as one type of temporal structure created by our society based on human social practices and temporal cycle of our bodies. She talks about the complexity of temporality in our society and throws light on the social aspects of time (socially constructed time). The artifacts, for example clocks and calendar, record the activities and events through a variety of schedules, which represent both socially constructed and objective time. The temporality is also affected by social structures and society temporal regularity. The explicit temporal structures (for example holidays) and implicit temporal structures (for example an anniversary) also decide the pattern of time management.

The research reported in this book extends temporal structure theories and evidence for investigating new user requirements to enhance the current electronic calendar systems. This research also offers insights on capturing and utilizing surrounding temporal structures for successful personal time management practices.

The book introduces the concept of time based on prior time research and its related concepts. Quantitative and qualitative time, clock-based and event-based time and linear and cyclical time are discussed in the book. The complexity of temporal phenomena is dealt with in the book in great detail. The purpose is to introduce important time concepts to the readers to make learning flow naturally through out the book. To understand how individuals perceive time, psychological aspects of time are also explored, particularly focusing on individual’s time urgency and time perspective. The book reviews and synthesizes time management and temporal personality literatures in organization behaviour, experimental psychology and educational psychology fields as well as some practical time management handbooks.

The author identifies how individuals process temporal structure information to develop insights into quality time management. The book presents the study results of two in-depth interviews with twenty professionals for identifying what types of temporal structures are being used in their personal time management practices and possible design implications to further design the current electronic calendar tools. It seeks to find out whether temporal structure is an important component of individual time management practices.

To study time management statistically the book reports descriptive data analyses, construct independence and univariate analyses for a large survey study. The book also describes the process of normality tests, skewness and kurtosis analyses.

The book tries to identify who are effective time managers? The chapter presents the bivariate analysis results, and compares the differences between effective time managers and ineffective time managers based upon their temporal structure knowledge, usage and relationship understanding.

The book enumerates useful and practical time management hints from users that were surveyed and it identifies user difficulties with the current electronic time management or calendar tools that users’ desired calendar features. It describes additional stories and evidence from individual users regarding their time management practices and their expectations about what ideal calendars or time management tools are needed. The author supports the argument for the need to design and implement calendar tools that incorporate more temporal structures than the limited ones that are now being used. A longitudinal study, presented in chapter 12, summarizes and extrapolates the results presented and combines this data with salient results from the interviews presented in the book. Explicit suggestions are made for design opportunities that would capture currently unavailable or difficult to capture temporal structures.
The book presents the key findings for this research. Chapter 13 demonstrates how this work is related to the fields of information systems, computer science and human computer interaction. It discusses the limitations of this research and describes future research directions that arise from the results of this research.

The book, in chapter 13, describes concepts, systems and experiences with computer-aided collaborative scheduling and in chapter 14 introduces the concept of E-scheduling. The purpose of these chapters is to help the practitioner not to encounter any barrier in implementing calendar tools. The principal issues of effective learning space management of an online course (workload management, student management and time management) are discussed in chapter 15 so that all the important aspects of space management of an online course are dealt with at great length.

The themes discussed in the book; the complexity of temporal phenomena, the alignment of temporal structures with personal temporal constraints and their effect on personal productivity, temporal personalities and management of time, electronic time management, personal time management, current calendar tools etc.; present a complete sphere of time management and their synergistic combination brings out effective time management. The book differentiates between effective and ineffective time managers based on their temporal structure usage and understanding. The book also enumerates useful and practical time management hints for readers and users. It covers the latest techniques, tools, methodologies and perspectives to help manage time effectively. It also provides qualitative and quantitative evidences and insights for enhancing current electronic calendar system design and implementation.

The book tries to bridge the gap existing between temporal structure usage in personal time management practices and the current electronic calendar design. It offers takeaways for all: researchers, practitioners and organizations. Researchers and practitioners in the area of human-computer interaction, information system and computer science as well as people who are generally interested in improving their time-management will benefit immensely from the book as it singularly focuses on temporal structuring in individual time management and provides thoughtful insights into temporal personalities, calendar tools, time dichotomies, and effectiveness of time management. For organizations the process of capturing, retrieving and creating temporal structures, is indeed a knowledge management process and therefore the book provides useful hints to design more appropriate and effective temporal structures for their employees for higher productivity.
Book Review: The Dynamics of Strategy: Mastering Strategic Landscapes of the Firm

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BOOK REVIEW

This first edition of 'The Dynamics of Strategy' by Robertson and Caldart has a distinct flavour to its approach in examining the field of strategy. The book is in two parts. The first part focuses on the external competitive landscape and the second looks at the internal 'organizing' landscape. Distilling key framework and theories in light of their potential for strategic analysis, the book is undoubtedly a good read. However, though comprehensive in some ways, future editions will need to re-examine the positioning as a generic strategy text.

The book takes off with a very lucid description of models of competition from economics and links them up with the conceptualization of strategy. The expression in easy to read boxes is well complemented with business examples. Emphasizing the adaptation required with respect to these classical models to help the practice of strategy is useful. This helps understand the evolution of strategic analysis to cope with the increasingly turbulent and complex real world business situations. Recognition of the need for strategy to draw from different disciplines also comes to the fore.

The practice perspective in context of dynamic environments arrives rather quickly in the third chapter. The context for adding to concepts and models in strategic management like the 'dynamic capabilities' perspective under the folds of the resource based view reads very well. However, while the emphasis on evolution of models to support the practice of strategy in turbulent and high velocity environment appeals, there is a case to elaborate on some classical models to help have wider appeal. This could be in boxes here - like the five forces, generic strategies, strategy clock and maybe also a snapshot of strategy schools. This suggestion draws on the presentation that has been used in the previous chapter (2) to great effect. While these classical models can be found in many strategy textbooks, they would provide a more holistic feel to this book as a standalone text for students. The difficult task of course would be to keep it terse and maintain the flow.

Chapter 3 and 4 work to built and discuss the idea of competitive landscapes making useful connections with the idea of agent based models and social networks. From a practice perspective the book does tend to get more descriptive in chapter 3 and loses some of its initial emphasis on focused business examples before coming back to it rather strongly in chapter 4. The part on agent based models as network models is particularly useful as the book starts to focus on organizational performance and profitability. The discussion starts to look at connections between actors, contextualizes non-linear behaviour, and also the impact of variation in sense making of the business environment by different actors.

Part II of the book, starting chapter five, begins by looking at the organizational landscape. It discusses organizational structure and design to complement the earlier discussion on competitive landscapes and on the networked business environment. Leading with the rational approach to organization design the book builds an 'evaluation' and 'customizing' argument. This is to argue that different situations call for an assessment of the interface between the internal and external landscape. The book presents perspectives from literature used to study organizing and organizations. It discusses how different organizational objectives (viz. change or task), and organizational forms (viz. industrial context, evolutionary context) can be understood. Chapter 7 does the difficult task of integrating the external and internal perspectives, or of aligning competitive landscapes with organizational landscape. It does a fair task in drawing on key literature that is important for musings presented here. Business examples to elaborate on these are particularly well written. The sharp and focused orientation of the book remains in a succinct chapter 8 that concludes with a classificatory discussion on key frameworks, and also to an extent, what the book has tried to do.

As mentioned this book is not a conventional strategy text, it is very useful to read for research students and academics but may appeal less to students in taught programs. This is partly given its selective and rather succinct approach. This approach is crucial for the flow of the book but misses out on some crucial elaborations; particularly in chapter 3 where more expression on some popular strategy models (as aforementioned) may be contemplated. The book may also be a good read for senior managers for getting a grasp of the relevance and context of strategy in practice. The construction of the strategic landscape is a useful emphasis throughout the book. It is a good post-MBA read, simply because it juxtaposes the challenges of strategic analysis, and the potential of drawing and combining conceptualizations from literature to deliver to them.