Organisational and Group Antecedents of Work Group Service Innovation: A study of the Australian Hotel Industry

E. Nsenduluka
School of Management, Victoria University, Melbourne, Australia
Email: evaristo.nsenduluka@dse.vic.gov.au

Himanshu K. Shee*
School of Management, Victoria University, Melbourne, Australia
Email: himanshu.shee@vu.edu.au

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Profile: (max 100 words)
1. E. Nsenduluka is currently a PhD student in the School of Management at Victoria University, Melbourne. His thesis is in the area of work group service innovation. He is also interested and has published and presented papers in the area of employee turnover.

2. Dr. Himanshu Kumar Shee is lecturer in School of Management in Victoria University, Melbourne. His area of interest includes teaching and research in Operations Management, Supply Chain Management and Project Management. Presently he is engaged in organisational competitiveness and Service Innovation research. He has published number of papers in international journals and attended many international conferences.
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Abstract
This study examined the individual and combined effects of the organisational-level variables of climate and task design, and the group-level variables of group citizenship behaviour (GCB), market orientation, group self-efficacy (GSE), and group climate for innovation (GCI) on work group service innovativeness. Specifically, this study theorised that work group service innovativeness is a product of both organisational (organisational climate and task design) and work group (GCB, market orientation, GSE) contexts. Drawing upon work group innovation literature, six hypotheses were derived. Data were collected through a 64-item questionnaire using a 7-point likert scale from four hotels in Melbourne. Results indicated that organisational climate, task design, GCB, group self-efficacy, and group climate for innovation were significant predictors of work group service innovativeness, while market orientation was not. Limitations, future directions, managerial and research implications are explored. (134 words)

Key words: motivation, creativity, work design, organisational design, group processes, group dynamics

INTRODUCTION
Organisational scholars have long recognised the critical role played by innovation in an organisation’s ability to successfully compete and survive. It is therefore little wonder that for decades, the study of innovation has attracted scholars of practically every social science discipline, from political science, sociology, psychology, economics, education and administration (Westphal et al. 1997), to management and organisational science (Neal et al. 2004). All scholars from these diverse fields share one belief in common: innovation is the engine that fires the environmental adaptation of organizations, adaptation that in turn is crucial for the organizations’ long term survival. Indeed, as it is sometimes said in business circles, organisations must innovate or perish! Unfortunately, in spite of innovation’s theoretical and applied importance, our understanding of the antecedents, processes and outcomes of innovation, at the work group level remains wanting (Wolf 1994; Choi 2000; Janssen et al. 2004), especially in the service industry.

This state of affairs is regrettable because the role of groups in the innovation process has been underestimated (Nijstad and De Dreu 2002). They are capable of high levels of productivity by combining knowledge, skills, perspectives, experience, and expertise of members with diverse knowledge backgrounds. They create ideal conditions for developing new and useful products and processes (Lipman-Blumen and Leavitt 1999) and as Nijstad and De Dreu (2002) point out, in modern organisations, there is almost inexorable tendency to restructure work from individual-based to group-based activity. Hence, one of the most challenging and crucial questions for organisational scientists is
to understand the dynamics of both team effectiveness and ineffectiveness. This study combines organizational and work group level variables in an attempt to contribute to our understanding of work group service innovation. It will test the conceptual model that organizational and work group contexts create a group climate for innovation that in turn lead to work group service innovativeness.

CONCEPTUAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

A conceptual model of work group service innovativeness is proposed in Figure 1. The model proposes that Group Climate for Innovation mediates the relationship between organizational and work group contexts on one hand and Group service Innovativeness on the other. It is noteworthy that many organizational phenomena are multilevel in nature (Kozlowski and Klein 2000). In this study classification of study variables into organizational and work group contexts is not exhaustive but is based on relevance. It is guided by previous works such as the authoritative review of group performance by Guzzo and Shea (1992) which proposed an input-process-output model of group performance as a plausible overarching framework to guide research on the antecedents of work group innovation, and West and Farr’s (1990) 3-level study of innovation of the organization, the work group and the individual. The conceptual model and its variables are explained below in detail.

Understanding work group behaviour requires that we view groups as subsystems embedded in a large system. Researchers have increasingly been pointing towards the influential role that context plays in determining group effectiveness and innovation (Amabile 1988; Woodman et al. 1993; Guzzo & Dickson 1996).
Organizational Context Variables

Organisational Climate

One of the most important organizational variables affecting group innovation is climate (Jung et al. 2003; Mavondo & Farrell 2003; Steensma et al. 2003; Jassawalla et al. 2002; Chandler et al. 2000). Simply put, organisational climate refers to the perceptions of organisational members of their work environment, including members’ tasks. There has been an increasing recognition of the role of organisational level variables such as climate and culture in group performance (Shalley & Gilson 2004; Nijstad & De Dreu 2002; Chandler et al. 2000; Guzzo & Shea 1992; Guzzo & Dickson 1996; Hackman 1992) and group innovation (West & Farr 1990). It is proposed here that an organization’s climate contributes to a work group’s innovation by creating a positive climate in the work group. Organisational climate provides a context that determines the level of group innovation both directly and via their impact on team inputs and team processes (West 2003).

Hypothesis 1 (H1): Organisational climate contributes to group climate for innovation that in turn affects work group service Innovativeness.

Task Design

From the work design literature, it can be expected that job characteristics, considered by some as an organizational phenomenon, influence the level of work group innovation (Guzzo & Shea 1992; Axtell et al. 2000). Task design, based on the Job Characteristics Model (Hackman & Oldham 1976, 1980; Hackman 1987; Oldham & Cummings 1996; Spreitzer et al. 1999) is perhaps the best known approach to the study of the work design-innovation link. Several important characteristics of design are presumed to be related to organizational effectiveness, including innovation. One of these is self-management, which is the group analogy to autonomy at the individual level. A related characteristic is decision-making participation. Self-management and participation are presumed to enhance group effectiveness including the propensity for innovation by increasing members’ sense of responsibility and ownership of the work (McGrath 1984; Porter et al. 1987). Other characteristics include task variety, which involves giving each person the chance to perform a number of the group’s tasks; task significance, the degree to which the task has a substantial impact on the lives or work of other people, whether in the immediate organisation or in the external environment, e.g. customers (Hackman 1987). Finally, according to Hackman (1987), work should have task identity, which is the degree to which the work group completes a whole and separate piece of work. Identity may increase motivation because it increases a group’s sense of responsibility for meaningful piece of work. It is argued, in this study, that the presence of the fore-going characteristics in task design creates a work group climate for innovation that leads to work group service innovativeness. The rationale is that task orientation or intrinsic motivation (and therefore innovation) are said to be evoked by autonomy.
or self-management, participation, task variety, significance, identity, and by completeness (whole tasks) and by learning and development opportunities (West 2003; Amabile 1983).

Hypothesis 2(H2): Task design contributes to group climate for innovation that in turn affects work group service Innovation.

Work group Context Variables

Group Citizenship Behaviour (GCB)

Group Citizenship Behaviours (GCBs) are akin to Organisational Citizenship Behaviours (OCBs), work-related behaviours that are discretionary, not related to the formal organizational reward system, and, in the aggregate, promote the effective functioning of the organization (Moorman 1991). GCB can be conceptualised as a distinct group-level phenomenon concerning the extent to which the work group as a whole engages in OCB. Research evidence suggests that OCB may be an important factor in employee and organisational effectiveness including innovation (Koys 2001; Alotaibi 2001; Hunt 2002; Karen 2002; Carol et al. 2003). However, as is the case with the other variables in the proposed model under study, GCB has rarely been studied at the group level. It is posited here that, GCB affects service innovation by promoting a work group climate for innovation. This proposition is in line with Chen et al.’s. (2005) observation that a functional analysis of GCB would suggest that, like most of the team mental models (Klimoski & Mohamed 1994), the main function of GCB is to promote coordination among group members, foster group efficiency, and facilitate predictability of individual and group behaviours.

Hypothesis 3 (H3): GCB contributes to group climate for innovation that in turn affects work group service innovativeness.

Market Orientation

Narver and Slater (1999, p.21) define market orientation as “the organization culture that most effectively and efficiently creates the necessary behaviours for the creation of superior value for buyers and, thus, continuous superior performance for the business”. They argue that market orientation is constituted by three behavioural components: customer orientation, competitor orientation, and inter-functional coordination. Continuous innovation is implicit in each of these components (Narver and Slater 1999), and the two decision criteria are long-term focus and profitability. Market orientation has previously been linked to innovation (Atuahene-Gima 1996; Lado and Maydeu-Olivaires 2001; Mavondo and Farrell 2000 2003; Darroch and McNaughton 2003; Maydeu-Olivaires and Lado 2003; Verbees and Meulenberg 2004). We argue that, although most of these studies have studied market orientation at the organisational level, its impact on innovation can be extrapolated to the work group level. Market orientation creates a work group climate for innovation that leads to service innovation. This is because it promotes group membership, and, as Pulendran et al. (2000) point out, being market-oriented creates an environment for listening,
understanding and responding to the market and the competition. In addition, as it is the case with new product development (Narver and Slater 1990; Wren et al. 2000), market orientation in the service industry involves close and effective cross-functional cooperation. Just as such close cooperation among different functional groups is an important antecedent to new product development (Atuahene-Gima 1996) it is also important to service innovation.

**Hypothesis 4 (H4):** Market orientation contributes to group climate for innovation which in turn affects work group service innovativeness.

**Group self-Efficacy**

Group self-efficacy, like individual self-efficacy, involves beliefs regarding capability to accomplish particular tasks. It shares a certain similarity with the individual motivational construct of self-efficacy (Pethe 2002; Cannon-Bowers et al. 1995; Bandura 1986). It is proposed that group self-efficacy promotes a work group climate for innovation that leads to service innovation. since self-efficacy, by virtue of its motivational potential, is related to both performance and innovation (Pethe 2002), there is a high probability that group efficacy is related to both work group performance and work group innovativeness (Pethe 2002; Agrell & Gustafson 1996; Guzzo et al. 1993; Guzzo & Shea 1992; Farr & Ford 1990; Shea & Guzzo 1987). The argument is consistent with studies which have found a relationship between self-efficacy and innovation (Keer & Verhaeghe 2005; Segaar et al. 2006).

**Hypothesis 5 (H5):** Group self-efficacy contributes to group climate for innovation that in turn affects work group service innovativeness.

**Group Climate for Innovation (GCI)**

GCI has been described as shared perceptions referring to the “proximal work group”. This work group is considered as the “permanent or semi-permanent team to which individuals are assigned, whom they identify with, and whom they interact with regularly in order to perform work-related tasks (Anderson and West 1998, p.236)”. The four-factor theory of innovation (West 1990) contends that group innovations often result from group activities which are characterised by (1) focusing on clear and realistic goals in which the group members are committed (called vision), (2) interaction between group members in a participative and non-threatening climate (called participative safety), (3) commitment to high standards of performance and, thus, preparedness for basic questions and appraisal of weaknesses (called task orientation), and, (4) enacted support for innovation attempts, for example, cooperation to develop and apply new ideas (called support for innovation). Given that the link between GCI and innovation is well established (Gosling et al. 2003; Agrell and Gustafson 1994), we contend that a work group high on innovation climate leads to service innovation.

**Hypothesis 6 (H6):** Group climate for innovation leads to work group service innovativeness.
RESEARCH METHOD

Sample and Data Collection

Four hotels in Melbourne, including one that provided 3 branches from its chain responded favourably and participated in the 64-item questionnaire survey with a 7-point likert scale (1 = strongly disagree to 7 = strongly agree). These four hotels yielded survey data from work groups with a total of 303 correct responses (46.2% males and 53.8% females) out of a sample of 1170 respondents, an average organisational response rate of approximately 27 per cent. The work group, defined along functional hotel departments (Reception/Front office; Housekeeping; Food & Beverage/Banquets/ Functions; Kitchen; Maintenance; Human Resources/Administration; and Concierge) formed the unit of analysis. This approach is consistent with past group research designs (McGrath 1986; Shea and Guzzo 1987; Campion & Medsker 1993.; Dexter and Turk 2002; Pete 2002). The questionnaire, consisting of existing well-established instruments, was administered under the same conditions, at each participating hotel, over a period of two months. The survey was administered in the 3rd quarter of 2004.

Approximately 6 months after the quantitative data collection exercise, 5 structured, in-depth interviews were conducted with 5 work group team leaders (2 males and 3 females) from the 4 participating hotels. Respondents were sourced using a convenience sample. The objective of the interviews was to capture team leaders’ perceptions of how innovative work groups differ from non-innovative ones on six workplace dimensions: Organizational Climate, Group Climate, Task Design, Group Self-efficacy, Market Orientation, and GCB.

Measures

All scales were adapted from existing measures. The predictor variables included organizational climate which was tapped using three sub scales each consisting of three items relevant to innovation and adapted from Francis’s (2001) “Innovation Capability Audit”. The sub-scales have relatively high reliabilities that range between .80 and .86. The three scales were: commitment to innovation (sample item: “Top management take innovation seriously.”), initiatives welcomed (sample item: “Personal initiatives are supported, providing people work within guidelines.”), and innovation empowerment (sample item: “Employees are empowered”). Task design was measured using a 15-item scale adapted from Campion and Medsker’s (1993) scale of work group characteristics and effectiveness. The scale has acceptably high reliability (Cronbach’s alpha = .80) and has the added advantage of limited length. Sample items included: “Most work-related decisions are made by members of my work group rather than by my manager” (Self management); “Most work-related decisions are made by members of my work group rather than by my manager” (Participation); “Almost everyone in my work group gets a
chance to do the more interesting tasks” (Task significance); and, “My work group is responsible for a unique area or segment of the business” (Task identity).

Campion and Medsker’s (1993) potency sub-scale (Cronbach alpha =.80) in their work group characteristics and effectiveness scale was used to capture Group self-efficacy. A sample item is: “My group has a lot of team spirit”. The 13-item Narver and Slater (1999) market orientation scale (Cronbach alpha =.93) was used to measure market orientation. A sample item is, “Understanding customer needs is very important in my hotel.” GCB was captured using an adaptation of Koy’s (2001) “Organizational Citizenship” scale. One item for each dimension of GCB was included: conscientiousness (“the work group you supervise works to exceed guest’s expectations”); altruism (“the work group members you supervise can count on co-workers when they need help”); civic virtue (“the work group you supervise feels responsible for its success”); sportsmanship (“the work group you supervise has a ‘can do’ attitude”); and courtesy (“the work group you supervise treats its members with respect”). The internal consistency of the GCB scale is acceptable with the coefficient alphas ranging between .85 and .86.

The current standard measure of group or team climate for innovation is the Team Climate Inventory (TCI) (Anderson & West 1994). For reasons of parsimony, group climate for innovation was measured in this study using Kivimaki and Elovinio (1999) short 14-item version of the TCI (Cronbach’s alpha = .90), which is a short version of the original. Sample items include: “My work group’s objectives are worthwhile to the hotel” (Vision); “In this hotel, we have a ‘we are together’ attitude (Participative Safety); “In my work group we take the time needed to develop new ideas (Support for innovation); and “The work group critically appraises potential weaknesses in what it is doing in order to achieve the best possible outcome” (Task Orientation). The task orientation sub scale was dropped from this study as preliminary factor analysis results showed all its three elements cross-loading on the other sub scales.

The dependent variable, ‘work group service innovativeness’ was measured using Kivimaki’s (1996) five-item work unit innovation scale (Cronbach alpha = .87). The scale assesses how encouraging the respondent’s work group is in doing things in a new and innovative way, whether improvements in how things are done are regularly made, and whether information concerning improvements is spread to everybody in the respondent’s work group and to other work groups. A sample item is, “Everybody in our work group is encouraged to think of ways of doing things better.”

Analysis
To test the study hypotheses (Hypothesis H1, H2, H3, H4, H5, H6), a hierarchical regression was conducted in which ‘work group service innovativeness’ was regressed on the following variables, in this order: (a) organisational context variables: organisational climate and task design; the logic was that the organizational context is a super order system relative to the work groups’ context. (b) Work group variables: GCB, market orientation, group self-efficacy, and (c) the group climate for innovation (GCI). Hierarchical regression analysis allows partitioning of the total variance explained by a set of predictor variables into unique portions explained by discrete subsets of the antecedents (Organ & Konovysky 1989). At each step in the regression analysis, the change in R-square was investigated for significance. An alpha level of .05 was used for determination of statistical significance of all results.

**Results**

The means, standard deviations and Pearson correlation of all studied variables are presented in Table 1. Mean values for all study variables are reported to be in the range of 3.2 to 3.69, while their standard deviations ranged from .55 to .87. The highest correlation (0.741) is found between group climate for innovation and work group service innovativeness, and the lowest (.225) is between task design and organisational climate. Cronbach alpha are presented diagonally in parentheses.

Hierarchical Regression (Table 2) was performed to determine if addition of organisational variables (Organizational climate and task design) and work group variables (Group citizenship behaviour, market orientation, group self efficacy and group climate for innovation) improved prediction of work group service innovativeness.

In stage 1 (Model 1), organizational context variables, task design and organizational climate had significant effects on work group service innovativeness ($\beta =0.161, p<.001$ and $\beta = 0.574, p< .001$ respectively); ($\Delta R^2 =.387, p<.001$), with organizational climate having the bigger impact. Thus, both H1 and H2 were supported. In stage 2 (Model 2), after controlling for organizational climate and task design, all work group variables, except market orientation, had significant impacts on the dependent variable with group self-efficacy having the most impact ($\beta =0.288, p< .001$) followed by group citizenship behaviour (GCB) ($\beta =0. 277, p< .001$), then group climate for innovation ($\beta =0.121, p< .05$). Thus, H3, H5 and H6 were supported with $\Delta R^2 =.247, p<.001$. Market orientation had no significant effect on work group service innovativeness. Hypothesis H4 was not supported.
The qualitative data complimented the quantitative findings. It was apparent that the work group perceived as innovative was described in more positive terms, on all six model variables, relative to the group perceived as non-innovative. The reverse was the case for when the groups were described in negative terms.

**DISCUSSION**

The present findings contribute to theory by providing a link between organisational and work group contexts on the one hand and work group service innovativeness on the other. Results showed that the work groups’ organizational context is an important determinant of the work groups’ service innovativeness. This finding is consistent with previous studies related to organisational climate (Mavondo and Farrell 2003; West and Wallace 1991; West and Anderson 1996; Anderson and West 1998) and task design (Amabile 1988; Axtell et al. 2000; Dorenbosch et al. 2005).

Most researchers appear to concentrate on the issues of technology and structure while ignoring the role and contribution of organizational climate to organizational effectiveness (Ali and Ali 2005). Organizational climate, as perceived by employees is one of the most important drivers not only of both performance and employee affective reactions but also of creativity and innovation (Ashkanasy et al. 2000; Woodman et al. 1993). Organisational climate is especially important in the hotel industry because research has demonstrated a positive relationship between service climate and customer perceptions of service quality (Schneider 1990; Schneider et al 1998). These perceptions, in turn, can be attributed to service innovation. Group climate factors such as vision, support for innovation, and participative safety have been shown to influence levels of innovative behaviour. A positive climate stimulates the innovation process and contributes to testing and in some cases implementation of ideas. Therefore, the role of organizational climate in fostering innovation warrants more attention, especially at the most neglected level of analysis, the work group level.

Task design has long been considered a significant contributor to employees’ motivation to innovate (Axtell et al. 2000; Dorenbosch et al. 2005; Hackman & Oldham 1980; Unsworth & Parker 2003; West & Farr 1990) with the Characteristics Model (Hackman & Oldham 1980) still being one of the leading theoretical principles (Parker & Wall 1997; Parker et al. 2001) in explaining these dynamics.

At the work group level, the results have confirmed the important role played by group self-efficacy, and GCB in promoting work group service innovativeness. Group self-efficacy was significantly related to work group service innovativeness \(r = .64\). This result is consistent with previous findings (Pescosolido 2003; Pethe 2002; Agrell & Gustafson 1996; Guzzo et al. 1993; Guzzo & Shea 1992; Farr & Ford 1990; Shea & Guzzo 1987). As in other work settings, group efficacy in the hotel service
industry acts as a motivational vehicle for work groups to come up with innovative ideas of customer service. According to Bandura (1986), efficacy judgements serve to mediate the relationship between the contextual factors of adequate levels of skills/knowledge, incentives, opportunity to perform, task clarity, and specific performance behaviours.

The finding of a relationship between GCB and service innovativeness is in line with previous studies (Karamayya 1990; Koys 2001; Podsakoff and MacKenzie 1994; Podsakoff et al. 1997; Walz and Niehoff 1996). GCBs, in plain language, are employee efforts that go “above and beyond the call of duty” (Bolino and Turnley 2003, p. 60). They include such behaviours as taking on additional assignments, voluntarily helping other people at work, following laid down rules even when others are not watching, skipping one’s break to complete an urgent task, maintaining a positive attitude and tolerating inconveniences, and, promoting and protecting one’s employer. What the results in this study imply is that work groups with high levels of GCBs are also more likely to have high levels of work group innovativeness. Therefore, management’s challenge is to cultivate GCBs.

One way the hotel service industry can cultivate citizenship behaviours is to invest in what is called social capital, that is, strong interpersonal connections among employees (Bolino et. al. 2002). At the level of the work group, this would entail work groups willingness to exceed their formal requirements in order to help other work groups, for example, the morning housekeeping staff can continue getting vacated guest rooms ready for occupancy, if the afternoon shift is running late. Another way to build social capital would be to encourage work group members to take part in the hotel’s social life. They are likely to meet colleagues working in other departments with whom they might not otherwise have contact. Organizations with relatively high levels of social capital are better able to elicit the commitment of their employees (and work groups), to attract and retain top employees, to be flexible, to manage collective action, and to develop high levels of intellectual capital (Bolino and Turnley 2005).

The finding of no significant relationship between market orientation and work group service innovativeness is at odds with previous findings (Verbees and Meulenberg 2004; Atuahene-Gima 1996; Gatginon and Xuereb 1997; Hurley and Hult 1998). Apparently, there is no perception of a significant relationship between market orientation and service innovativeness at the work group level in the hotel industry. A plausible explanation for this result is that market orientation is less a work group phenomenon and more of an inter-organizational phenomenon, focussing less on intra-hotel issues, an area of more concern for work group members.
The correlation between the GCI and work group service innovativeness is positive and significant \( r = 0.74 \). The result is consistent with previous findings that have found team climate for innovation to be the proximal predictor of work group innovativeness (West and Anderson 1996; West and Farr 1990; Anderson and King 1993; King and Anderson 2002). Work groups are more likely to be innovative if their work group vision has clarity, attainability, sharedness, and is visionary in nature. In this study, clarity refers to the extent to which the vision is readily understandable to members of a hotel work group.

MANAGERIAL IMPLICATIONS

Taken as a whole, the present findings indicate that workplace innovation can be influenced by different factors, some of which are related to the organisational context, while others are related to the work group context. Management should convey to all work groups in the organization that innovation is valued and support is available for workable customer service improvement ideas. They should encourage work groups by focusing on creativity and innovation as important performance outcomes, rather than only on productivity. Overall, by providing an innovation supportive organizational climate and jobs high on skill variety, task identity, significance, self-management and feedback, management will be laying the groundwork for the germination and growth of GCBs, work group self-efficacy, and customer-oriented behaviours, which, eventually should promote both a climate for innovation and innovation itself.

STUDY LIMITATIONS AND FUTURE DIRECTIONS

One limitation of the present research is that it suffers from the common deficiency of cross-sectional designs: inability to draw causal inferences. Longitudinal studies of the work group antecedents of service innovation are called for. Another potential limitation might stem from using survey items designed for the individual level of analysis at the work group level. The question is, does a construct’s intended meaning stay unchanged once you move it from the individual to the group level of analysis? Klein et al. (2001) have argued that survey wording has considerable power in promoting within-group agreement and between-group differences. Socially undesirable items may foster big within-group agreement simply because most respondents disagree with the items. Future research needs to address this issue. Finally, the sample in this study was limited to one kind of service industry, the 3-5 star hotel industry, thus limiting generalisability. Clearly it is important to check if the model can hold in other service industry contexts.

ACKNOWLEDGEMENT

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Appendix

Table 1 Means, SDs, and Pearson correlations of organisational & work group variables and work group service innovativeness (N= 303), Cronbach alpha are presented diagonally in parentheses.

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Mean</th>
<th>SD</th>
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<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Task Design</td>
<td>3.5</td>
<td>.55</td>
<td>(.80)</td>
<td>.410**( )</td>
<td>.332**( )</td>
<td>.341**( )</td>
<td>.225**( )</td>
<td>.328**( )</td>
<td>.243**( )</td>
</tr>
<tr>
<td>2. Market Orientation</td>
<td>3.66</td>
<td>.68</td>
<td>(.93)</td>
<td>.739**( )</td>
<td>.719**( )</td>
<td>.615**( )</td>
<td>.634**( )</td>
<td>.437**( )</td>
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<td>3. Group Citizenship Behaviour (GCB)</td>
<td>3.57</td>
<td>.76</td>
<td>(.86)</td>
<td>.707**( )</td>
<td>.546**( )</td>
<td>.702**( )</td>
<td>.514**( )</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Group Climate for Innovation (GCI)</td>
<td>3.64</td>
<td>.70</td>
<td>(.90)</td>
<td>.593**( )</td>
<td>.741**( )</td>
<td>.681**( )</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Organisational Climate</td>
<td>3.2</td>
<td>.69</td>
<td>(.86)</td>
<td>.577**( )</td>
<td>.468**( )</td>
<td></td>
<td></td>
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<tr>
<td>6. Work group Service innovativeness</td>
<td>3.38</td>
<td>.72</td>
<td>(.87)</td>
<td>.641**( )</td>
<td></td>
<td></td>
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<td>7. Group self Efficacy (GSE)</td>
<td>3.69</td>
<td>.87</td>
<td>(.80)</td>
<td></td>
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<td></td>
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</table>

* ** p< 0.01

Table 2 Hierarchical Regression Analysis of Organisational and Work group variables and work group service innovativeness (N=303)

<table>
<thead>
<tr>
<th>Model</th>
<th>B</th>
<th>SE</th>
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<th>ΔR²</th>
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<td>1 (Constant)</td>
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<td>.387**</td>
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<td>Task Design</td>
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<td>.056</td>
<td>.161**</td>
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<td>Org. Climate</td>
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<td>.053</td>
<td>.574**</td>
<td></td>
</tr>
<tr>
<td>2 (Constant)</td>
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<td>.202</td>
<td></td>
<td>.247**</td>
</tr>
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<td>.003</td>
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<td>GSE</td>
<td>.261</td>
<td>.043</td>
<td>.288**</td>
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<tr>
<td>Mkt. Orientation</td>
<td>.125</td>
<td>.067</td>
<td>.107</td>
<td></td>
</tr>
<tr>
<td>GCB</td>
<td>.269</td>
<td>.050</td>
<td>.277**</td>
<td></td>
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<tr>
<td>Gp. Climate Innovation</td>
<td>.164</td>
<td>.080</td>
<td>.121*</td>
<td></td>
</tr>
</tbody>
</table>

Dependent Variable: Work group Service Innovativeness (WGInn)
B= unstandardized regression coefficients, β = standardised regression coefficients,
SE = standard error of B
*P < .05, **P < .001