Relevance of the Phenomenon

Customers bring a wide range of experiences, knowledge and personality traits to the service encounter, implying that customer behavioral variability is inherent to service contexts (Spreitzer and Doneson 2005). More recently, the view that customers are proactive co-creators and not simply passive receivers of value has driven many firms to encourage customer participation in the provision of service (Payne, Storbacka and Frow 2008). The benefits of customer participation and co-creation to the customer such as increased customizability and control (Dabholkar 1990; Xie et al. 2008), and to the firm through increased profitability (Lovelock and Young 1979; Mills and Morris 1986) until now have been the focus of most research in this area. However, despite these inherent benefits, increased customer participation also implies increased variability and uncertainty within the service encounter, potentially resulting in increased employee role stress (Chan et al. 2010). Due to the inherent uncertainty accompanying increased customer participation and co-creation, especially in contexts where there is high scope for participation, the concept of frontline employee improvisation, which is based on the premise of reacting spontaneously in the moment, is proposed as a resource and capability that employees could develop to manage the potentially stressful effect of increased customer participation.

Potential Contributions to the Field

In traditional management practice, variability has been seen as something to be controlled or ‘managed out’ of the service process to increase consistency and
predictability for both employees and customers. Thus, emphasis has been placed on job design and control systems to manage the service process (e.g. Murray 1991; Varkey et al. 2007) which resulted in interactions where traditionally the service provider was the ‘expert’ and the customer the ‘novice’. However, in recent years, a shift has been seen in the way in which service interactions unfold, particularly in professional services with customers moving away from their traditional ‘novice’ role to co-create with the service providers. Therefore, the purpose of this research is to address the limitations in the current knowledge of the relationship between customer participation and employee role stress. Role stress, if not managed properly, often results in burnout, decreased employee performance and job satisfaction (Behrman and Perreault Jr 1984; Boles et al. 1997; Schaubroeck et al. 1989). This negative chain of events highlights the importance of adequate resources for employees to manage the changing and increasing demands of their service role. Thus, the main contribution of this research lies in the management of the potentially stressful role demand of increased customer participation on service employees.

**Research Question(s)**

Does frontline employee improvisation reduce the role stress resulting from customer participation?

**Theoretical Foundations**

This research draws on and contributes to two theories: Role theory and Job Demands-Resources theory. Role theory is based on the premise that individuals behave in predictable ways as dictated by their role and role scripts (Biddle 1986; Katz and Kahn 1978). However, as service contexts become increasingly complex,
roles are more difficult to define, thus requiring a degree of flexibility in determining one’s behavior within one’s role. By considering employee resources and capabilities, this research is also well positioned to contribute to JD-R theory, which states that when job demands exceed the resources available to the employee, negative outcomes such as an increase in employee role stress/strain can ensue (Demerouti et al. 2001). Increases in customer participation and co-creation challenges the service provider’s ‘expert’ role, often resulting in increased role demands. With more resources and capabilities, employees will be better able to manage their job demands.

Figure 1. Conceptual Framework
Methodology

Data were collected from employees of a radiology healthcare provider in Australia and dental providers in the United States. The link to the online survey was distributed to a sampling frame of employees from both industries with response rates of 63% and 13% respectively. Where possible, this study used existing scales to measure the focal constructs of interest: customer participation (Chan et al. 2010), employee role stress (Rizzo et al. 1970), and employee job satisfaction (Chan et al. 2010). However, given that the literature contains no widely accepted scale that measures individual frontline employee improvisation directly, an eight-item scale was adapted from Vera and Crossan’s (2005) measure of team improvisation and Moorman and Miner’s (1998) measure of organizational improvisation. EFA and CFA calculations resulted in a measurement model comprising five multi-item constructs with 24 indicators. Multiple regression analysis was then used to test the hypotheses.

Findings

Results of this study found that despite a strong theoretical basis for positing the positive relationships between customer participation and employee role stress, these effects were not significant (p > .05). However, the regression results indicated a significant interaction effect of customer participation and improvisation on employee role stress (β = -.235, p <.01; β = -.191, p <.05 in the two samples respectively). This finding supports the hypothesis that improvisation weakens the relationship between role stress and customer participation. Aiken and West’s (1991) simple slope test was carried out to explore the direction of the relationship between
customer participation, improvisation and role stress. The simple slope tests indicated that at high levels of improvisation customer participation had a negative (favorable) effect on employee role stress ($\beta = -.323, p < .05$; $\beta = -.297, p < .05$), whereas at low levels of improvisation this effect was not statistically significant ($p < .05$) (see Figures 2 & 3).

Further, it is evident that at higher levels of customer participation, individuals who display high levels of improvisation experience less role stress than do individuals who display low levels of improvisation. In addition, individuals who display high levels of improvisation experience a statistically significant decrease in role stress as customer participation increases. Thus, employees who reported higher levels of improvisation experienced lower levels of role stress with increasing customer participation. However, individuals who display low levels of improvisation experience an increase in role stress as customer participation increases.

Results from this study also provide support for the negative relationship between employee role stress and employee job satisfaction ($\beta = -.349, p < .001$; $\beta = -.345, p < .001$).
Figure 2. Simple Slopes at Different Levels of Improvisation (radiology)

![Graph showing role stress vs. levels of improvisation in radiology](image)

Figure 3. Simple Slopes at Different Levels of Improvisation (dentistry)

![Graph showing role stress vs. levels of improvisation in dentistry](image)
Discussion

This study presented a model of improvisation moderating the potentially tenuous relationship between customer participation and employee role stress. Building on JD-R theory, improvisation is being proposed as a coping mechanism, resource, or ‘buffer’ between the job demand of customer participation and the negative job outcome of role stress/strain. Thus, as a job resource, improvisation would contribute to the motivational potential of the employee, the underlying mechanism behind the job resource argument, by reducing job demands through permitting flexibility and spontaneity, which in turn lead to positive outcomes such as a reduction in role stress (Demerouti et al. 2001).

Further, improvisation could reverse the nature of the demand into a resource. When combined with employee improvisation, customer participation could actually be a source of benefit, value or stimulation to help the employee perform his/her job better. Thus, the introduction of improvisation could potentially cause a shift in how customer participation is perceived – from a demand into a resource – by delaying the depletion of individual coping resources through providing a means to adapt and alter typical responses, providing more options to manage and even benefit from the demand or challenge presented and reducing perceived stress.

A main contribution of this research therefore is an interactionist/fit argument, to improvise effectively one needs an improvisatory partner: if customers are not participating in the service encounter, this partner is missing, which could be perceived as stressful by employees. Thus the conclusion can be drawn is that high improvisation is good when customers are engaged (high CP), whereas low improvisation is preferred when customers are less engaged (low CP).
Role theory highlights the need for flexibility in determining one's behavior within one's role, with this behavior ultimately leading to job outcomes such as reduced role stress and increased job satisfaction. Thus, with the addition of the concept of improvisation, role theory should be better able to predict the evolution of roles over time.

**Conclusion**

A general conclusion that could be drawn is the utility of improvisation in reducing employee role stress in the context of customer participation. Due to its inherent flexibility, improvisation would permit employees to adapt the service interaction as they see fit, which would lessen their role stress as they would not be faced with 'trying to fit a square peg in a round hole’. Thus, this research has addressed a call in the literature for training in appropriate coping and problem-solving skills to manage increased customer participation (Bitner et al. 1994; Chan et al. 2010). Through improvisation, employees can be trained to adjust and adapt their behaviors to the interpersonal demands of the service encounter.
References


