



Improving service delivery

Investigating the role of information sharing, job characteristics, and employee satisfaction

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Abstract

Purpose – The purpose of this study is to propose and test a model designed to investigate the impact of job characteristics, employee satisfaction, and information sharing on two key indicators of quality service delivery, such as worker perceptions of their efficiency and customer focus.

Design/methodology/approach – During the project, 9,060 employees of a large national telecommunications organization in North America provided information in two surveys six months apart. The model was tested by using the PLS (Partial Least Squares) procedure.

Findings – The results found support for the proposed model, indicating that autonomy and challenging work contribute to employee satisfaction, and that employee satisfaction and information sharing relate to greater reported efficiency and customer focus. The results and their implications are discussed.

Research limitations/implications – The key limitation of this project is that the suggested model was tested in only one organization in one industry. In future, the nomological validity of the model should be confirmed in other settings.

Practical implications – The findings suggest that HR departments should cooperate with IT departments to promote high-quality service delivery.

Originality/value – Whereas HR is traditionally the domain of employee satisfaction initiatives, it is the IT department that typically spearheads knowledge management initiatives. By coordinating these two ventures together, and aligning their goals, senior managers will be able to realize more favorable outcomes.

Keywords Information exchange, Job descriptions, Career satisfaction, Service delivery, North America
Paper type Research paper

1. Introduction

Organizational viability requires that service-oriented firms be able to achieve two important outcomes: operational efficiency and excellent customer service. These factors are particularly critical in highly competitive industries. Operational efficiency enables the organization to increase its competitive advantage by increasing its output in relation to its inputs. Research shows that organizations in service-oriented industries benefit from adopting strategies that maximize human capital (Skaggs and Youndt, 2004). Supporting worker efficiency is one way that organizations can improve competitive advantage. Similarly, organizations in service industries need to acquire and maintain customer relationships, and adopting a customer focus is essential. A customer focus involves adopting structures, strategies, and priorities that facilitate a greater understanding and responsiveness to customer needs (Vandermerwe, 2004;



Gulati and Oldroyd, 2005). The current study proposes that information sharing and employee satisfaction are two important elements that are necessary to support these objectives. Employees require information to carry out their work in a responsive and efficient manner, and they are more likely to be motivated to engage to function effectively if they are satisfied with their work. The study also examines the role of job challenge and autonomy in fostering employee satisfaction.

The present investigation draws on concepts from knowledge management and organizational behavior in order to propose and test a model that illustrates how organizations can improve outcomes through the management of information and relevant work conditions. One of the contributions of this project is the integration of knowledge management, job characteristics, job satisfaction, performance, and customer service research domains. A focus on customers and knowledge management are beneficial in maintaining positive customer relationships because the combination of the two enables greater responsiveness to the needs of customers and serves as a source of competitive advantage (Batt, 2002).

These conditions are expected to have great salience in industries that are highly competitive; therefore this study was conducted within the context of a large telecommunications firm. The objective of this research is to demonstrate that organizations can achieve these outcomes by ensuring that employees have sufficient information to do their jobs and by creating a work environment that enables employee satisfaction.

2. Literature review

2.1 Knowledge management

The field of knowledge management has grown extensively in the last several years and is now considered a recognized academic discipline (Serenko and Bontis, 2004; Serenko *et al.*, 2009, 2010). The literature clearly identifies how competitive advantage may be achieved with the effective management of knowledge-based resources (Wah, 1999; Bou-Llusar and Segarra-Ciprés, 2006; Halawi *et al.*, 2007). Knowledge management involves the proactive harvesting and building of a firm's intellectual capital, thereby reinforcing the competences required by the organization to achieve its objectives (Bontis and Fitz-enz, 2002). While technology and environmental conditions change, intellectual capital in the form of knowledge possessed by an organization is unique, tacit, and difficult to replicate or move (Silvi and Cuganesan, 2006). Effective information sharing enables the transfer of tacit and explicit knowledge from individuals within the organization to the collective, which in turn results in higher competency and ultimately in greater strategic advantage (Grant, 1996).

Although organizations can transfer knowledge through a variety of methods, previous research has demonstrated that this task requires more than just the right technological tools (Bontis *et al.*, 1999). It is actually more important for the organization to create a culture of sharing (Connelly and Kelloway, 2003). Grant (1997) recommends that firms incorporate the management of knowledge throughout business processes and organizational structures as a means of supporting its development. The alignment of knowledge and business or learning processes results in greater efficiency (Bontis *et al.*, 2002). These challenges are particularly important in innovative or dynamic industries; and effectively managing knowledge under these conditions has been found to positively relate to higher firm performance (Thornhill, 2006).

Knowledge management is equally important in customer service contexts where learning and generating knowledge about products and services and being able to respond to specific customer demands contribute to competitive advantage (Sin *et al.*, 2005). A customer focus refers to the extent to which an organization and its members are oriented toward understanding and responding to the needs of the consumers utilizing the firm's products and services (Strong, 2006). A customer focus goes beyond merely providing good customer service – it requires the alignment of firm-level commitment to customers and employee behaviors. Employees manage information for, about, and from customers that can at times be complicated and detailed, and organizations must work to align their information needs with business processes (Gebert *et al.*, 2003). To achieve their objectives, organizations must move beyond managing knowledge required for customer transactions to generating knowledge necessary to improve the customer experience (Bose and Sugumaran, 2003). Internal information sharing builds employee self-efficacy in offering effective customer service by providing employees with technical knowledge that they may then share with customers, and by explaining organizational objectives so that they understand the importance of maintaining a customer focus. Knowledge management also relates to customer satisfaction and in turn to improved organizational performance because less time is spent seeking information or correcting errors related to a lack of information (Civi, 2000; Anantatmula, 2007). Information sharing in retail settings, such as offering advice or imparting knowledge to customers, may help employees build rapport with their clientele, which in turn may improve the customer service experience (Gremler and Gwinner, 2008).

2.2 Job characteristics

In addition to knowledge management, job characteristics also contribute to employee satisfaction, and through that, to organizational efficiency and customer focus (Bontis and Serenko, 2007). The job characteristics model identifies autonomy (along with task significance, skill variety, task identity, and feedback) as contributing to the internal motivational potential of a job (Hackman and Oldham, 1976). Meta-analyses have shown that these characteristics were significantly related to job satisfaction in different contexts (Fried and Ferris, 1987; Brown and Peterson, 1993). According to Self-Determination Theory (SDT), individuals have strong needs for autonomy, competence, and relatedness. The extent to which individuals are able to satisfy these needs is important to maintaining psychological health. People are intrinsically motivated to maintain a sense of well-being. Job autonomy and challenge help to maintain a sense of mastery, which in turn may trigger a positive cycle of self-development, contributing to increasing satisfaction and well-being (Deci *et al.*, 1989; Pugno, 2008). Additionally, these positive experiences contribute to positive perceptions of the job, and individuals who have positive attitudes towards their jobs are also likely to be more involved and satisfied with their work (James and Jones, 1980).

In this project, two key job characteristics have been analyzed – namely, job autonomy and job challenge. Job autonomy is defined as “the degree to which the job provides substantial freedom, independence, and discretion to the employee in scheduling the work and in determining the procedures to be used in carrying it out” (Hackman and Oldham, 1975, p. 162). It relates to the individuals' perceptions of the choice or volition that they experience in their work (Gagné and Deci, 2005). Employees

who perceive that they have more autonomy in their jobs are likely to experience a greater sense of control which contributes to their satisfaction because their control allows them to make attributions about their achievements to themselves rather than to external factors.

The job characteristics model suggests that task significance and variety can contribute to perceptions of greater job challenge. Empirical research supports the link between challenging work and job satisfaction (Podsakoff *et al.*, 2007). Challenging work allows employees to use their knowledge and skills and to engage in a wide range of activities (Evans and Fischer, 1992) that may lead to higher self-efficacy (intrinsic motivation) and greater opportunities for recognition (extrinsic motivation) (Liden *et al.*, 2000). Eustress (positive stress that stimulates energy and productivity in challenging situations) is likely to contribute positively to job satisfaction, while distress (intense or enduring negative stress) has a deleterious effect on the individual. Job autonomy is an important factor that potentially contributes to the positive appraisal of job challenges (Colligan and Higgins, 2005). In general, enriched jobs (those with greater job challenge and autonomy) increase job satisfaction and other positive outcomes (Orpen, 1979).

2.3 Employee satisfaction

Employee job satisfaction is defined as “an attitudinal construct reflecting one’s evaluation of his or her job” (Ilies and Judge, 2004, p. 368). Attitudes such as job satisfaction are formed by both affective states and thoughts about the job and the organization. Social exchange theory (Blau, 1964; Cropanzano and Mitchell, 2005) and the norms of reciprocity (Gouldner, 1960) help to explain how individuals, who experience satisfying work, may increase their effort and decrease counterproductive or withdrawal behaviors. Satisfaction may form a currency of exchange that triggers a felt obligation to the organization, thereby leading employees to contribute more to objectives of the organization and by doing so increase their efficiency and effectiveness on the job. Perceived efficiency refers to the extent to which individuals have the resources and the ability to conduct their work in an efficient manner. Employees who experience job satisfaction are also more likely to possess a positive self-concept at work and greater self-determination that facilitates higher efficiency and effectiveness (Deci *et al.*, 1989; Gagné and Deci, 2005).

Employee satisfaction increases enthusiasm and engagement in customer service encounters, which in turn improves customer satisfaction (Burke *et al.*, 2005). High involvement strategies that encourage job autonomy and employee engagement may also contribute to a greater service-orientation, and by focusing on customer service, may also contribute to higher customer satisfaction by engaging in behaviors that are helpful to customers (Chebat and Kollias, 2000; Batt, 2002). Employees who are satisfied in their jobs also tend to have more positive perceptions about the organization’s products and services, and therefore deliver a better service. Satisfied employees are more likely to perceive their work more positively (James and Tetrick, 1986), which also increases the customer focus by empowering employees to use their own discretion in responding to customer needs (Hui *et al.*, 2004).

2.4 Hypotheses:

The following hypotheses describe specific paths that will be used to test the proposed model (see Figure 1). The model is developed by integrating theory and research from

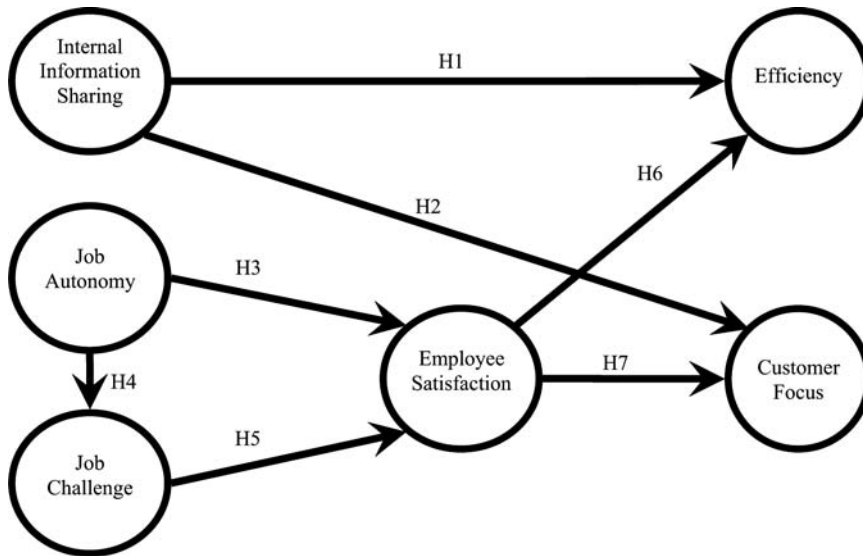


Figure 1.
Research model

knowledge management, organizational behavior, and customer service arenas. Taken together, the model examines the role of information sharing and job characteristics as two aspects of service delivery outcomes with employee satisfaction playing a mediating role between job characteristics and the outcome variables.

- H1.* Internal information sharing is positively related to employees' perception of their ability to be efficient in their work.
- H2.* Internal information sharing is positively related to employees' perception of their ability to be customer focused.
- H3.* Employee perceptions of job autonomy are positively related to employee satisfaction.
- H4.* Employee perceptions of job autonomy are positively related to their perceptions of healthy job challenge.
- H5.* Employee perceptions of healthy job challenge are positively related to employee satisfaction.
- H6.* Employee satisfaction is positively related to employees' perception of their ability to be efficient in their work.
- H7.* Employee satisfaction is positively related to employees' perception of their ability to be customer focused.

3. Methodology

To test the suggested model, an invitation to complete a self-administered online survey was e-mailed to all 11,325 employees of a large national telecommunications organization in North America. To encourage respondents, the invitation was sent by

the senior management team, and all questionnaires were completed anonymously. Even though no bonuses, gifts, or other tangible rewards were offered, the respondents were informed that the findings may offer valuable insights on the current state of the organization and suggest avenues to improve knowledge flows. All variables were measured on a five-point Likert-type scale. The following constructs were utilized:

- *Internal information sharing.* Employee perceptions of the quality of information sharing were assessed using four items such as “I have enough information to do my job well.”
- *Job autonomy.* Employees were asked to rate the extent to which they believed that they were able to work autonomously in their job with two items such as “I have the authority to make decisions that improve the quality of my work.”
- *Job challenge.* Job challenge was assessed with four items such as “My job makes good use of my skills and abilities.”
- *Job satisfaction.* Employees were asked to rate their job satisfaction with five items, for example: “My work gives me a feeling of personal accomplishment.”
- *Efficiency.* Participants rated the extent to which they believed that their workplace had become more efficient and innovative in the prior six months. A sample item was “Over the last six months, changes in my work environment have allowed me to be more effective.”
- *Customer focus.* Employees rated the extent to which they believed their organization was focused on customer service, for example “Over the last six months, my work unit has become more customer focused.”

The survey items related to information sharing, job autonomy, job challenge, and job satisfaction were collected at Time 1 and the evaluation of outcome measures, such as efficiency and customer focus, at Time 2 (six months later). This was done to reduce common method bias (Spector, 1994; Woszczyński and Whitman, 2004). To develop all items, a group of independent academics and senior managers of the organization was consulted to ensure face validity of the instrument. On completion, several rounds of reviews were conducted to ensure the reliability and validity of all scales, and minor adjustments to item wording were made.

Employees of this organization were predominantly knowledge workers in offices as well as business development staff who would frequently visit client sites. Generally speaking, these employees were highly educated with university degrees. The age profile and gender breakdown of the employees of this organization was quite similar to other large organizations within this sector.

4. Results

In this study, 9,060 usable questionnaires were received at the response rate of 80 percent. The tenure profile of survey participants that was consistent with the whole organization: 5 percent less than six months, 27 percent six months to five years, 68 percent greater than five years.

The measurement and structural models were estimated by using Partial Least Squares (PLS) procedures in SmartPLS version 2.0.M3. PLS is a second generation Structural Equation Modeling technique that has received recognition in the scientific community (Chin, 1998; Gefen *et al.*, 2000). The One-Sample Kolmogorov-Smirnov

Normality Test revealed that the data pertaining to all constructs were distributed non-normally ($p < 0.000$). Therefore, PLS, which handles deviations from normality better than co-variance based SEM techniques, was the most appropriate tool for analysis.

To validate the measurement model, the following series of steps was followed. First, construct reliability was assured by measuring Cronbach's alphas. Second, all values of Average Variance Extracted (AVE) and Composite Reliability exceeded the recommended cut-off points of 0.5 and 0.7, respectively. Third, all item loadings captured over 50 percent of the variance of their constructs (see Table I). Fourth, to test for discriminant validity, a table of loadings and cross-loadings was reviewed, and it was assured that each item loaded higher on the construct it belonged to than it cross-loaded on other constructs. Fifth, as recommended by Fornell and Larcker (1981), a correlation matrix was developed where all diagonal values represent the square root of the Average Variance Extracted (see Table II). Overall, it was concluded that the measurement model exhibited acceptable psychometric properties and further analysis should proceed.

In order to derive t-statistics for the structural model, bootstrapping with 400 cases and 600 samples was done by using the facilities of SmartPLS. As a result, all hypotheses were supported at 0.001 level (see Figure 2).

5. Discussion and conclusions

All proposed hypotheses were tested and validated with the structural equation model. If one looks at the core of the model, employee satisfaction acts as the nexus. It has both a set of antecedent drivers and outcomes. The two antecedents of employee satisfaction are job autonomy and job challenge with the strength of both relationships being

Construct	Mean	Std	Cronbach's alpha	AVE	Composite reliability	Item loadings (range)
Internal information sharing	2.34	0.85	0.84	0.680	0.894	0.791-0.867
Job autonomy	2.34	0.91	0.83	0.751	0.901	0.859-0.876
Job challenge	2.06	0.86	0.85	0.767	0.908	0.859-0.895
Employee satisfaction	2.46	0.92	0.92	0.755	0.939	0.846-0.883
Efficiency	2.87	0.95	0.84	0.681	0.895	0.752-0.867
Customer focus	2.75	1.05	0.76	0.671	0.859	0.716-0.868

Table I.
Item statistics and estimated loadings

Construct	Internal information sharing	Job autonomy	Job challenge	Employee satisfaction	Efficiency	Customer focus
Internal information sharing	0.825					
Job autonomy	0.661	0.867				
Job challenge	0.598	0.737	0.876			
Employee satisfaction	0.686	0.687	0.702	0.869		
Efficiency	0.675	0.717	0.617	0.719	0.825	
Customer focus	0.535	0.480	0.490	0.592	0.571	0.819

Table II.
Correlation matrix and discriminant validity assessment

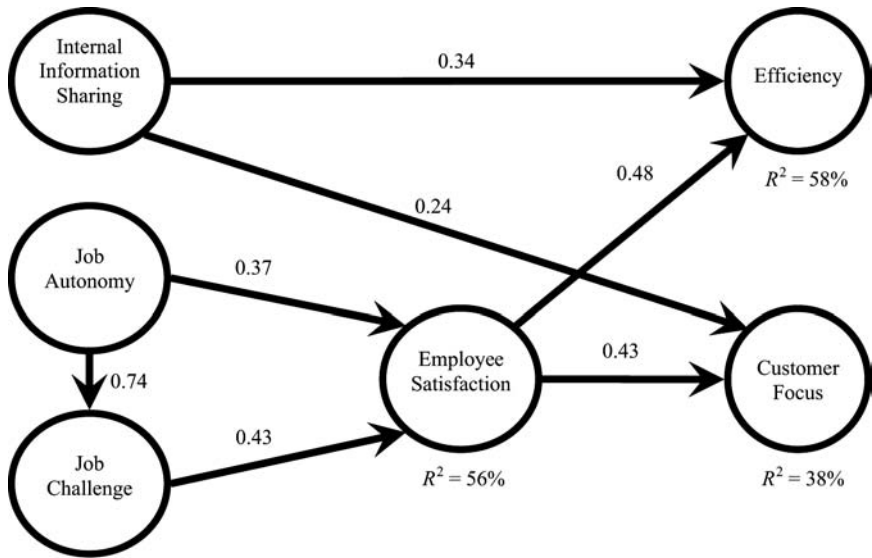


Figure 2.
Structural model

Note: All values are significant at 0.001 level

relatively equal. Job challenge partially mediates the effect of job autonomy on employee satisfaction, with the total job autonomy – employee satisfaction effect of 0.69 (i.e. $0.37 + 0.74 \times 0.43$) that is considered high in management research. This demonstrates that highly educated knowledge workers and business development personnel value their autonomy. Consistent with the literature, it was observed that the more challenging someone’s job is, the higher his or her level of job satisfaction. It is recommended that telecommunications company managers design working conditions that facilitate the perception of job autonomy for their staff as a means to boost job challenge and, ultimately, job satisfaction. They should also assign challenging tasks to their employees, for example, through job rotation or promotion.

Notwithstanding, employee satisfaction also leads to efficiency and customer focus with relatively equal strength. In other words, employee satisfaction is a critical variable in that it is driven equally by the perception an employee has about the value of his or her job. If that value is deemed at a higher level, the employee will in turn be more efficient and customer focused. Overall, this investigation confirms a widely held belief that job satisfaction serves as a key motivational factor for several critical organizational outcomes, such as efficiency and customer focus. Therefore, managers of telecommunications companies should pay close attention to employee satisfaction. For example, they should periodically measure its level by conducting employee surveys, identify its antecedents and look for ways to increase it.

In this study, it was found that internal information sharing acts as another multiplier in that it impacts both employee efficiency and customer focus. However, internal information sharing and employee satisfaction explain a higher proportion of variance in efficiency (48 percent) than in customer focus (38 percent). It is concluded that customer focus may be affected by other external variables, which were not included in this study’s model. Therefore, when telecommunications companies

improve internal information sharing and employee satisfaction, they should expect a higher increase in employee efficiency than in customer focus.

Whereas the satisfaction of employees plays a critical role in the pursuit of efficiency and customer focus, the acceleration of information sharing among those satisfied employees acts as a catalyst for further improved business outcomes. This result validates the importance of both technological tools and culture in the pursuit of collaboration among employees.

There exist two critical contributions of this study. First, the development of a model from a multidisciplinary perspective provides the opportunity to test hypotheses that emanate from disparate management fields such as organizational behavior (employee satisfaction), knowledge management (internal information sharing) and marketing (customer focus). A richer perspective can be developed by integrating concepts from a variety of literatures. The second contribution from this study is the unique nature of the measurement. Recall that the endogenous constructs (efficiency and customer focus) were measured six months apart. This lag time allows the study to benefit from a long-term view of the outcomes of employee satisfaction in that the phenomenon can be treated as both an endogenous and exogenous construct. Measuring aspects of the model at two different points also allows for the reduction of any common method bias within the study.

The telecommunications industry in particular is exhibiting innovation at break-neck speeds and hypercompetitive markets with large incumbent firms constantly being challenged by more nimble up-starts. The results of this paper provide an important insight to senior managers of large firms who wish to pursue higher service levels. The key challenge is that the main initiatives studied (i.e. employee satisfaction, information sharing and customer focus) are typically owned by varying corporate departments (i.e. human resources, information systems and marketing). In many large corporations, these departments are often at odds with one another because they seek allocation of resources from the same finite budgetary pool. The main recommendation for practitioners is that there needs to be a stronger effort in collaboration among these departments. Unfortunately, the critical (political) discussions around the mahogany tables of most large corporations are led by the respective leaders (vice presidents) of each of these disparate departments.

The main limitation of this project is that the hypotheses were tested in only one organization. This limitation is mitigated by the fact that the firm studied was a national organization and that the sample size was quite large. In future, it would be useful to consider testing the hypotheses using the same instrument across a variety of organizations. In addition, the quantitative approach employed in this investigation describes the relationships among the constructs, but it does not explain why these links exist. To fully understand this phenomenon, future investigations should use a qualitative study design.

The quest for razor-like customer focus and improved organizational efficiency is a constant pursuit for senior managers. The results of this investigation offer a novel perspective in that the HR department must work more closely with the IT department in pursuing these common goals. Whereas HR is traditionally the domain of employee satisfaction initiatives, it is the IT department that typically spearheads knowledge management initiatives. By coordinating these two ventures together, and aligning their goals, senior managers will be able to realize more favorable outcomes.

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