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The impact of knowledge sharing culture on job satisfaction in accounting firms. The mediating effect of general competencies

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Abstract

This paper outlines the critical role of employees' general competencies in the link between knowledge sharing culture and job outcomes (satisfaction) in accounting firm services (accounting offices). A knowledge sharing culture facilitates communication and information exchange, problem solving, team working and decision making. General competencies embrace abilities such as prioritizing, learning new things, coming-up with new ideas and solutions, working productively with others. The discussion arises primarily based on the considerable theoretical vagueness and empirical inconclusiveness in the existing literature concerning knowledge management mechanisms and their contribution. As of interest to resolve this controversy, a research framework is developed in which general competencies act as the mediator between knowledge sharing culture and employees' satisfaction in accounting offices. The empirical findings from a survey of 84 employees in accounting offices in Central Greece confirmed that general competencies exert a mediating effect on the relationship between knowledge sharing culture and job satisfaction. The main implication of the findings for accounting managers is that employees in a knowledge sharing working environment are more likely to achieve higher job satisfaction and subsequently effectiveness, as a result of strengthened general competencies. Thus, specific directions for managerial action have been derived.

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1. Introduction

Globalization, fierce competition, financial crisis and advances in communication and information technology trigger the emergence of a knowledge-driven economy, which force organizations to depart from traditional perspectives on dealing with human resources and adopt a knowledge management approach. Knowledge management (KM) focuses on identifying, sharing, creating and storing of knowledge in pursuit of organizational learning (Rowley, 2000). KM consists of two types of knowledge: explicit knowledge, which can be clearly detected in tangible written or oral forms such as procedures, rules and regulations, and tacit or implicit knowledge, which espouse an intangible nature inherent in employees' values, beliefs, experience and knowhow (Nonaka, 1991).

In the OB literature, a series of empirical studies have acknowledged the crucial impact of knowledge sharing (KS) on the successful implementation of KM and organisational excellence (e.g. Widen-Wulff & Ginman, 2004; Yang, 2007a). KS aims at the creation of job-related tacit knowledge amongst organizational members. Given that KS embraces employees' willingness to share knowledge with others (King, 2006), and their behaviours by which they exchange relevant information with their colleagues across the organization (Bartol & Srivastava, 2002), KS behaviour can be shaped and expressed by a variety of forms and factors such as motivation, social relationship, and organizational culture (e.g. King, 2007; King and Marks, 2008; Szulanski, 1996; Cummings & Teng, 2003; Lee & Suliman, 2002; Goh, 2002; Janz & Prasarnphanich, 2003). Knowledge transfer and exchange among group members of an organization facilitates the development of new as well as the sharpening of existing individual competencies (Hakkarainen et al., 2004; Sveiby, 2001). Competencies may be distinguished in two types: specific, which are essential in order to perform any specific technical or functional task, and general competencies, which include concepts such as intelligence, information-processing models, key competencies, and meta-competencies. A number of scholars have confirmed the influence of general competencies on job-related attitudes such as job satisfaction and performance.

The purpose of this study is to investigate the way in which knowledge sharing can improve general competencies for effective work-related outcomes. The relationship between knowledge sharing (KS) and job satisfaction (JS) of organizational members is developed and analyzed herein by proposing a mediating role of individual competencies. Most scholars explore the effects of knowledge sharing at the organizational level, while only a few research studies have focussed on general competencies and its mechanism contributing to individual effectiveness.

The paper is organized as follows. In the first section we discuss the two core concepts, namely, knowledge sharing and general competencies, as well as their association with job-related attitudes. The next section proposes a conceptual framework and explains the relationship between these three variables. This is followed by a section in which we introduce the research methodology and analyze the results. Finally, we discuss conclusions, managerial implications and limitation of the study.

2. Research Background

2.1. Knowledge Management & Knowledge Sharing

In the relevant literature (e.g. Nonaka, 1991; Rowley, 2000; King 2007), Knowledge Management (KM) has been defined as a process of collecting and identifying valuable information (i.e., knowledge acquisition), enabling employees to recover organizational knowledge (i.e., organizing knowledge), exploiting and beneficially applying knowledge (i.e., knowledge leverage), disseminating it through the whole organization (i.e., Knowledge sharing) and storing the knowledge in a repository (i.e., organizational memory). A rather comprehensive definition of KM has been put forth by Rowley (2000) stressing the importance of identifying, sharing, creating and storing of knowledge in pursuit of organizational learning.

KM embraces the concepts of explicit (documented), and tacit (subjective) knowledge (Nonaka, 1991). Explicit knowledge can be traced in tangible written or oral forms such as procedures, policies, rules and regulations, and is therefore easily acquired, transferred and shared. On the other hand, tacit knowledge, also termed "embrained

knowledge” and “procedural knowledge” (Argyris & Schon, 1978; Polanyi, 1966), has an intangible nature referring to mental constructs, values, beliefs and knowhow.

Knowledge sharing (KS) has been regarded as the most crucial component of KM (e.g. Bock & Kim, 2002; Gilbert and Krause, 2002; Inkpen, 2000; King, 2007), and defined as employees’ willingness to share their valuable knowledge with others (King, 2006), as well as their actions in which employees diffuse and exchange relevant information with other members across the organization (Bartol & Srivastava, 2002). Empowering individuals to be willing to share knowledge can be expressed by a variety of forms (King and Marks, 2008), stemming from either or both personal belief structures and institutional structures (Szulanski, 1996). Institutional structures such as shared values, norms, accepted practices or perceptions held by employees within an organization are usually described as “culture” (King, 2007). In this way, organizational knowledge may be conveyed to organizational assets and resources (Dawson, 2001).

A number of scholars have proved the association of specific characteristics of organizational culture with the successful implementation of KM, such as collaborative (as opposed to a competitive) climate (Cameron, 2002; Goh, 2002; Ruggles, 1998; Sveiby & Simons, 2002), trust (Goh, 2002; Rowley, 2002; Soliman & Spooner, 2000; Sveiby & Simons, 2002; Wagner, 2003), top management commitment (Hislop, 2003; Mrinalini & Nath, 2000; Rowley, 2002), mentoring (von Krogh, 1998), accountability for group or team sharing (Bollinger & Smith, 2001; Sawhney & Prandelli, 2000), innovative, problem-seeking and problem-solving orientation (Goh, 2002), and spontaneous and voluntary sharing (Dixon, 2002). In a survey of 431 US and European enterprises, Ruggles (1998) concluded that the most important obstacle for knowledge sharing is organizational culture (54%), followed by organizational structure (28%), information communication technology (22%), incentive system (19%), and staff turnover (8%).

2.2. Knowledge Sharing and general competencies

KS attempts to facilitate and develop job-related tacit knowledge amongst members of organizations. In particular, KS may refer to individuals’ knowledge, insights and working experience that are related to current tasks such as daily routines, accounting services offered, interpersonal relation techniques, communication skills, standard operation procedures, decision making, creativity and problem solving skills, employee behaviors, and customer interaction skills (King, 2007). So, knowledge interflow amongst organizational members in team-work facilitates the advancement of their individual competencies and collectively create new knowledge (Sveiby, 2001). Thus, knowledge synergies lead to enhanced social capital with two fold benefits: (a) knowledge sharing and exchange refines knowledge created by dialogue amongst members who possess knowledge, and at the same time (b) individual learning for those who receive knowledge. Empirical findings reveal that firm’s culture characterized by openness and empowerment boost the integration of individual competencies into organizational knowledge through learning and knowledge creating and sharing (Gupta, Iyer, and Aronson, 2000).

Relying on a series of empirical workplace studies as well as an extensive review of psychological, sociological and educational literature, Hakkarainen et al. (2004) put forth the view that social interaction, knowledge sharing, and collective problem solving develop human competencies related to network expertise.

Thus, the following hypothesis has been developed:

Hypothesis 1. Knowledge sharing exerts a significant positive impact on general competencies

2.3. Knowledge Sharing and general competencies

On the contrary, a lack of knowledge transfer leads to the creation of ‘silo’ operations where knowledge becomes isolated and orphaned (Wah, 2000). In this way, impediments in transferring information and knowledge from one party to another at the individual or organizational level, deteriorates individual and subsequently organizational effectiveness. Employees’ tendency to hoard knowledge, particularly under conditions of financial crisis where knowledge is a valuable resource, enhances occupational stress and individual competition. In particular, incomplete or partial transfer of knowledge cause knowledge depreciation’ or ‘organizational forgetting’, where employees share limited information and selected circumstances (Argote, 1999; Goh, 2002). Regardless of the origins of

withholding employee behavior, such as misunderstanding, filtering, ignorance, reluctance, competition and incompetence in transferring knowledge, failure in KS yields to decreased job outcomes.

Given that job performance and satisfaction is closely correlated as job attitudes or work-related outcomes, Cross and Cummings (2004) provided supporting evidence to the KS-JS relationship. They empirically found that knowledge sharing described as ties and networks is related to individual performance in knowledge-Intensive work. Similarly, empowering work environments that provide access to information, support, resources, and opportunity to learn and develop proved to influence employee work attitudes, such as job satisfaction (Spence Laschinger, Finegan, & Shamian, 2001). Alike, Teh & Sun (2012) revealed that job satisfaction is positively related to employees' knowledge sharing behaviour. In their survey, Organisation Citizenship Behaviour (OCB) was not a significant mediator to the relationship between job satisfaction and employees' knowledge sharing behaviour. However, Du et al. (2011) failed to establish a statistical significant relationship between knowledge sharing and performance described as product success and personal satisfaction.

Thus, the following hypothesis has been developed:

Hypothesis 2. Knowledge sharing exerts a significant positive impact on individual satisfaction

2.4. General competencies

Competencies acquired in higher education by employees are setting the ground for excellence referring to individual effectiveness at the working environment. Given that employees' capabilities and job requirements should be met, Allen and his colleagues (2005) developed taxonomy of competencies:

Specific competencies include clusters of cognitive prerequisites that an employee should acquire in order to be able to carry out efficiently tasks in a given substantive area (Weinert, 2001). Nevertheless, technological obsolescence and ever-going changes in labour market lead to the radical devaluation of specific competencies over time. Several scholars highlight the significant role of the 'specific' competence closely tighten to the profession or field specific knowledge and skills which are directly applicable to the tasks realized at the workplace. However, the opposition argument recognizes that 'generic' competencies or skills such as the ability to learn (conceptual competency) or communication and teamwork skills are more essential for success (Thompson et al., 1997).

General competencies embrace a range of constructs, such as intelligence, information-processing models, key competencies, and meta-competencies. This group of competencies is characterized by the ability to be applied in different contexts and contents. Moreover, this competency type support the implementation process of existing specific competencies as well as the development of new ones, in new work circumstances and environments.

Several scholars have put forth integrated conceptual models synthesizing both specific and general competencies, in order to meet cognitive, motivational and social requirements (Bloom, 1956; Boyatzis, 1982; Levy-Leboyer, 1996).

Abraham and his colleagues (2001) suggested that generic competencies are vital for all employees, regardless of their function or level, while specific ones are essential in order to perform any specific task in the organization within a defined technical or functional work area. Consequently, general competencies surpass specific ones regarding their applicability, flexibility and long term scope.

Building on this perspective, Allen et al (2005) introduced a conceptual model for the measurement of general competences consisting of nine broad action categories (directing productive tasks, directing the work of others, planning, coordination, control, innovation, information management, maintaining relations with personnel, and maintaining relations with clients) in relation to work circumstances.

A number of scholars have confirmed the influence of general competencies on job outcomes such as job satisfaction and job performance. For example, Stumpf (2010) found that project leader's competencies are related to job satisfaction, and job satisfaction plays a mediating role in the relationship between leadership competency and project performance. Alike, individual competencies including interpersonal understanding, commitment, critical thinking, persuasiveness and information gathering have been proved to contribute to effective nursing performance (Zhang et al., 2001).

Thus, the following hypothesis has been developed:

Hypothesis 3. General competencies exert a significant positive impact on individual satisfaction

2.5. Knowledge sharing, general competencies and Job satisfaction

KS may be seen as a precursor of General Competencies, which in turn may be considered as an antecedent of critical work outcomes such as job satisfaction. This logic is partially supported by Du et al. (2011) findings that knowledge sharing does not influence performance described as product success and personal satisfaction. In addition, knowledge sharing facilitates the betterment of employee competencies (Hakkarainen et al. 2004), which in turn contribute to work related attitudes (Stumpf, 2010; Zhang et al., 2001). These results may be explained by a mediating model, in which general competencies may intervene to the KS-JS relationship.

A review of organisational literature reveals that little empirical evidence exists about factors that might intervene between KS and JS (e.g. Stumpf, 2010), while there is a dearth of research that confirm the relationship between knowledge sharing and effectiveness at the organisational level (e.g. Du, Ai & Ren, 2007).

Therefore, the following hypothesis is put forward:

Hypothesis 4: The relationship between KS and JS is mediated by general competencies.

3. Research Methodology

3.1. Research Model and Instrument

The conceptual framework of the present study is illustrated in figure 1.

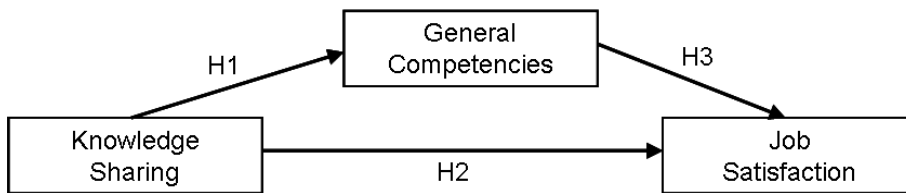


Fig.1. Research conceptual framework

3.2. Sampling

The field research based on employees in accounting services firms (accounting offices). The resulting sample comprised 84 valid questionnaires (response rate about 44%). Examining demographics, the 58% of the respondents are front-line employees and 35% are supervisors (lower hierarchical level). The 65% of the sample are female, 70% are less than 30 years old, 84% hold at least a university degree and the majority of them (62%) have less than 5 years of working experience. The 74% of the accounting firms participated in the field research employ less than 10 individuals, thus they belong to the micro-enterprises. The 76% of the respondents have less than 1,200 Euros monthly income.

3.3. Questionnaire Design

The research instrument was a structured questionnaire based on a seven-point Likert-type scale, which was developed to measure knowledge sharing, competencies and job performance.

After an extensive review of Knowledge Management research, we concluded to the following knowledge sharing construct which is a synthesis of a 10-item scale, consisting of the application of the qualitative studies of Yang (2004), and a 5-items measure suggested by Sveiby and Simons (2002). This instrument has been validated also by Yang (2007b). Representative items of this scale are the following: Combining the knowledge amongst staff has resulted in many new ideas and solutions for this accounting firm; In this accounting firm, information sharing has increased your knowledge; Sharing information translated to deeper knowledge in this accounting firm.

The research instrument developed by Allen et al., (2005) was adopted in our survey to measure general competencies of higher education graduates. A representative sample of items includes the ability to apply field-specific knowledge at work, the ability to come-up with new ideas, and solutions, the ability to work within a budget, plan, or guidance, the ability to learn new things, the ability to distinguish major priorities from secondary matters, and the ability to work productively with others.

Regarding job outcomes measures, job satisfaction construct was built upon Cammann's et al. (1983) recommendations.

The questionnaire was tested twice before it was released, by ten accountants from different organisations and by five academics for in depth discussions. They confirmed the cognitive relevance of the questionnaire to accounting services firms. To ensure the validity of the item translation, a (English/Greek) translate/back translate procedure (Brislin, 1970; Laroche et al., 2003) was used. The seven-point Likert scale adopted, provides increased measurement sensitivity and variance extraction (Cooper & Schindler, 1998).

4. Data Analysis and Results

4.1. Principal Component Analysis

Principal Component Analysis (PCA) with normalized varimax rotation was performed and confirmed the uni-dimensionality of the three main tools. In particular, one principal component was extracted from the Knowledge sharing scale, which accounted for over 53% of the total variation. Similarly, a latent factor was emerged (Kaizer criterion), explaining approximately 55% of the overall variance for the individual competencies construct. Regarding job satisfaction, more than 62 % of the total variance attributed to the uni-dimensional component calculated.

Table 1. Discriptive statistics and reliability analysis

	mean	S.D.	Cronbach's alpha	Items	% variance explained	KMO ^a
Knowledge sharing	3.95	0.987	0.918	19	53.7%	0.807
General competencies	4.26	1.014	0.946	20	55.6%	0.802
Job satisfaction	4.02	1.316	0.895	7	62.2%	0.852

^a The Kaiser–Meyer–Olkin (KMO) indicator was calculated to assess sample size adequacy. The minimum acceptable level is 0.5. Bartlett's test of sphericity is significant at $p < 0.001$ for all scales. Valid N=84.

Preceding PCA, the Bartlett sphericity testing on the degree of correlation between the variables ($p < 0.001$) and the Kaiser–Meyer–Olkin (KMO) index verified the appropriateness of the sample. Cronbach's coefficient alpha was calculated to test internal reliability of each scale, as recommended by Flynn et al. (1990), ranging approximately from 0.895 to 0.946. Thus, all sub-scales exhibited well over the minimum acceptable reliability level of 0.7. Table 1 presents descriptive statistics, number of items and reliability analysis indices of all scales. Table 2 presents the results of Pearson's correlation analysis of the three main variables.

Table 2. Correlation Analysis

	General competencies	Knowledge sharing	Job satisfaction
General competencies	-		
Knowledge sharing	0.549***	-	
Job satisfaction	0.470***	0.410**	-

* significant at the 0.05 level, ** significant at the 0.01 level, *** significant at the 0.001 level, (N=84).

4.2. Mediated Regression Analysis

Table 3 reports the results of mediated regression analyses. Seven control variables were included in the analyses namely gender, age, educational level, working experience, hierarchical level, firm's size (number of employees), monthly income. The direct effect of knowledge sharing on job satisfaction, without the effect of general competencies as described in hypothesis H2, is shown in Model 1 and it is significant, since the 38.7% of the total variance is explained. Knowledge sharing culture proved to have a positive statistically significant impact

on job satisfaction (std. beta=0.3691, $p<0.05$). Only respondent's age among control variables, is statistically associated with job satisfaction. Similarly, testing for hypothesis H2, knowledge sharing (std. beta=0.451, $p<0.01$) is strongly related to general competencies, explaining 42,8% of the total variance, as depicted in Model 2.

Following the procedures suggested by Baron and Kenny (1986), the role of general competencies in the equation is then analyzed by regressing both knowledge sharing and competencies on job satisfaction (Model 3). Compared to Model 1, the incremental change in adjusted R-square is significant and large (13,2%, $p<0.001$). This implies that general competencies have a strong direct effect on job satisfaction (std. beta=0.480, $p<0.001$). Model 3 shows also that knowledge sharing has no significant effect on satisfaction, due to the mediation effect, compared with its direct effect described in Model 1. In particular, the association of knowledge sharing with satisfaction is fully mediated by general competencies, because it is no longer significant when the effect of satisfaction is included at the last model. Thus, the mediating model proposed (H4) is supported.

No serious problems of multi-collinearity exist between the independent variables as Variance Inflation Factors (VIF) is far below the 3 points limit suggested in Social Sciences literature. The data were examined for outliers, skewness, kurtosis, and multivariate normality.

Table 3. Regression results pertaining to the relationship between knowledge sharing, competencies and job satisfaction

Dependent variable	Job satisfaction	Competencies	Job satisfaction
	Model 1	Model2	Model 3
Independent variables	Std. beta	Std. beta	Std. beta
<i>Control Variables</i>			
Gender	0.211	-0.179	0.297
Age	0.610*	-0.216	0.713**
Educational level	-0.041	0.129	-0.103
Working experience	-0.532	-0.233	-0.420
Hierarchical level	0.229	0.054	0.203
Firm's size (number of employees)	-0.196	-0.034	-0.179
Income	0.099	0.201	0.002
<i>Mediating effects</i>			
Knowledge sharing	0.369*	0.451**	0.153
General competencies	-	-	0.480**
<i>Adjusted R square</i>			
	0.387*	0.428**	0.519***

* significant at the 0.05 level, ** significant at the 0.01 level, *** significant at the 0.001 level, (N=84).

The results indicate that general competencies are the most vital, since they act as a mediator between knowledge sharing and work-related outcomes. Only through the improvement of general competencies, knowledge sharing can influence job satisfaction, confirming the mediation model.

5. Discussion and Conclusions

This study aims to investigate the mediating effect of general competencies on the link between knowledge sharing and job satisfaction. Drawing from a sample of 84 employees of accounting services firms, the mediation hypothesis is confirmed. That is, KS proved to be a precursor of General Competencies, which in turn exert a positive impact on job satisfaction. The effects of KS on individual satisfaction can be realized only through the improvement of general competencies.

Knowledge sharing lies at the core of KM and it reflects employees' willingness to share their valuable knowledge (King, 2006), as well as their actions facilitating the exchange of relevant information with other members across the organization (Bartol & Srivastava, 2002). Building on shared values, norms, accepted practices or perceptions held by employees within an organization, KS is evolved to and treated as a knowledge-centred culture which moulds individual behaviour (King, 2007; King and Marks, 2008; Szulanski, 1996; Cummings & Teng, 2003; Lee & Suliman, 2002; Goh, 2002; Janz & Prasamphanich, 2003). Then, knowledge sharing culture facilitates the development of new general competencies or sharpen existing ones, such as inventing new ideas, communicating, interpersonal relationships, prioritizing, creativity, planning, problem solving, and team working. Still, the advancement of general competencies drives individual effectiveness expressed by job satisfaction (e.g. Zhang et al., 2001).

Hence, managers in accounting services firms should adopt knowledge management practices and techniques

and nurture a knowledge sharing culture in order to improve employees' competency profiles. Competent employees are one of the utmost important resources in the pursuit of a sustainable competitive advantage.

Future studies could build on and validate the current results by assessing the role of organizational or national culture (Trivellas, & Dargenidou, 2009a,b) in the different profiles of employees' competencies as well as internal environment variables such as motivation, leadership, emotional intelligence and innovativeness (Trivellas, 2011; Trivellas, 2012; Trivellas & Drimoussis, 2013; Trivellas et al., 2013; Trivellas & Reklitis, 2014; Trivellas & Santouridis, 2009).

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