



THE ROLE OF REWARD MANAGEMENT IN ORGANISATIONAL KNOWLEDGE CREATION PROCESS

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Abstract

Knowledge creation and organizational rewards may be seen as an important factor of the new global economy as well as a family business. This study discusses the goals and advantages of the knowledge creation process, as well as the many forms of rewards in the family company. The goal of this research is to see how three distinct forms of incentives influence organizational knowledge creation. The study was conducted in a family business in Bosnia and Herzegovina. Therefore, this topic observes the impact of organizational rewards on knowledge creation, providing empirical evidence in a sample of two hundred (200) employees of family businesses in Bosnia and Herzegovina. Data were collected by using a survey method (1-5 scale), with a focus on validity, reliability, standard deviation, Cronbach's alpha, Pearson's correlations, and regression of the data in Microsoft Excel and SPSS was used in analyzing the results. The findings suggest that organizational rewards have a significant impact on knowledge creation. According to the findings, extrinsic organizational and extrinsic social rewards had the largest impact on knowledge production. As there is a lack of literature on this exact topic, the results of this research can be seen as an extension to similar studies and future-related research. In addition, results can be useful for managers and owners to see the importance and role of rewarding in family businesses.

Keywords: Rewards; extrinsic rewards, intrinsic rewards, organizational knowledge creation

INTRODUCTION

Given its importance in standings of global and nationwide economic development, knowledge may be observed as a symbol of the new worldwide economy. When identified as individuals sharing relevant skills and information with other organizational members, knowledge sharing is properly assumed to be an ethical performance; that is, the willingness to share knowledge with others may be observed as a proxy for recognition to a certain system of moral standards or values. Sharing information is a valuable intangible resource that may boost a company's competitiveness (Wang et al., 2004). Information or knowledge sharing, as a kind of ethics, has become a type of daily contact prevalent in many corporate contexts. (Lin, 2007) It has also been stated that a successful ethics program is concerned with the exchange of knowledge (or information) addressing frequently difficult problems of human conduct and evolving values Knowledge sharing makes an organization more competitive in the market. (Lin, 2007)

Knowledge creation at the organizational level is researched and described deeply by using Nonaka, 1994, and colleagues' SECI model. The SECI model consist of 4 modes; Combination, Socialization, Internalization and Externalization. (Nonaka, 2007)

By the Porter & Lawler, (1968) rewards are classified into 2 types: organizational rewards, extrinsic and intrinsic rewards. Organizational rewards, according to Katz & Van Maanen, (1977) are classified into 3 types: organizational, social, and task rewards. Intrinsic rewards include role clarity, feedback, skill variety, autonomy, involvement in decision making, and training. Extrinsic rewards include organizational and social benefits. Extrinsic incentives are those that are not directly connected to the job. Extrinsic social benefits are those that come as a result of working with others, such as helpful, supportive, and nice coworkers and considerate supervisors. Extrinsic organizational incentives are promotional chances, pay satisfaction, perks and working conditions are provided by the company and are meant to sustain commitment and increase performance. Furthermore, intrinsic incentives are a vital component of the labor itself. They include employment qualities such as training, autonomy, clarity, skill diversity, feedback, and decision-making involvement. While employees are happy with their rewards, they like their companies more and feel obligated to return to them (Hadziahmetovic & Dinc, 2017; Mottaz, 1988).

The goal of this research was to conclude whether there is a link between organizational rewards and knowledge production in Bosnia and Herzegovina's family businesses. The family business is well represented and is growing in popularity in the market. Family companies are the world's oldest and most frequent type of company organization.

Family businesses are about 70% of the overall business and have an important role in economic development. As for Bosnia and Herzegovina, after the war, many individuals decided to start their businesses with the support of their families, which affected the big growth of family businesses in B&H that began to play an important role in B&H development. (InsideB, 2012) Therefore, this research was conducted in a family business in Bosnia and Herzegovina to investigate their rewarding system on an employee in their firms. To evaluate the findings, Microsoft Excel and SPSS are utilized with an emphasis on validity, reliability, standard deviation, Cronbach's alpha, Pearson's correlations, and regression of the data.

Contribution of the Study

Scholars have recommended that individuals are the primary drivers of knowledge production in an organization (Nonaka, 1994) information sharing among employees might aid in collective knowledge generation. According to Senge, 1994 organizational knowledge is generated through the sharing of individual learning among coworkers. Similarly, Nahapiet & Ghoshal, (1998) proposed that organizational knowledge is produced as a result of employees combining and exchanging existing knowledge. Given the significance of information sharing, researchers and practitioners would be interested in discovering strategies that improve knowledge sharing inside organizations. (Bartol & Srivastava, 2002)

Several theories suggest that when individuals are given extrinsic benefits for knowledge sharing, they are more willing to share their expertise. According to social exchange theory, individuals will involve in a performance when the benefits outweigh the costs. (Emerson, 1976)

Therefore, this study will provide information and evidence of a rewarding system in the organizational knowledge creation process.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

One of the most important phases in knowledge management operations is knowledge creation. All workers must share their expertise and experience inside the business in order for knowledge sharing to be effective. Knowledge sharing is seen as an essential element in successful knowledge management (KM). Organizational knowledge and expertise must be shared to remain competitive in the marketplace. As a result, knowledge exchange activities are an essential component of KM processes. (Nonaka, 2007)

Nonaka (2007) discusses the primary goals and paradigms of organizational knowledge production. It starts with the nature of information and knowledge and then moves on to the distinction between "tacit" and "explicit" knowledge. There are two forms of knowledge: explicit knowledge and tacit knowledge. Explicit knowledge may be expressed and transmitted in the

form of data, scientific equations, specifications, manuals, and other resources. This sort of information may be readily and formally communicated among individuals.

Knowledge production is a cyclical process including interactions between explicit and tacit knowledge. Connections between various types of knowledge result in the formation of new knowledge. The combination of the 2 categories allows for the conceptualization of four conversion patterns. Each of the four conversion modalities may be viewed as a self-transcendence process. The SECI model is merely a framework for knowledge development, and the concept of self-transcendence is rather vague. It can, however, be put into practice. (Nonaka & Noboru, 1998)

Individuals socialize by exchanging tacit information. Using the word socializing to stress that tacit information is transferred through collaborative actions. (living in the same environment and spending time together) rather than oral instructions.

The process of expressing tacit information as explicit knowledge is known as externalization. Individuals utilize discussion (dialog), analogies, and team meetings as effective techniques to make strategy information practical at this level.

The combination is an explicit knowledge translation into more complicated sets of explicit information. The main subjects are the communication and diffusion process and the systemization of knowledge. In practice, the phase of combination is based on three stages.

And the last one is internalization, which is a transformation of explicit knowledge into the organization's tacit knowledge. In this stage explicit knowledge is absorbed by individuals, making stronger their tacit knowledge base. (Nonaka et al., 2000)

Reward management

The phrase "reward" refers to any form of monetary remuneration such as benefits that an employee receives as part of an employment contract (Malhotra et al., 2007b). They are significant predictors of employee job attitudes, such as organizational commitment and employee and organizational performance. By the research of Porter & Lawler (1968) rewards are classified into 2 types: intrinsic and extrinsic rewards. Katz & Van Maanen (1977) divided organizational incentives into 3 types: work rewards, organizational rewards, and social rewards. Organizational and social advantages are extrinsic rewards, whereas task incentives are internal (Hadziahmetovic & Dinc, 2020).

Intrinsic Rewards measured participation, task autonomy, feedback, skill variety, and training. Intrinsic motivation is when individuals feel that their work is consequential and gives them a degree of autonomy, a chance for growth, and develop their skills and opportunities. (Armstrong, 2007)

Extrinsic incentives are those that come from other sources, such as variables unrelated to the employment (Malhotra et al., 2007b).

Extrinsic rewards are affecting employees' knowledge-sharing behavior by their influence on the employees' motivation to share knowledge. (Bartol & Srivastava, 2002; Kathryn M. Bartol, et al., 2002)

Working condition

By the previous research to Armstrong, 2007 working conditions are the key element that influences employees' job attitudes. Since employees spend most of their time at work, working conditions play an important role. An important reward in any type of work environment is working condition (Malhotra et al., 2007b). The working condition can be regarded as a reward if they improve the overall quality of the work environment. It covers work organization, amenities provided, and job/role design. (Armstrong, 2007)

Pay satisfaction

The amount of money they get for the work they accomplish is referred to as pay satisfaction. The salary disparity between the organization where individual works and other organizations have a significant impact on his or her job satisfaction. (Hadziahmetovic & Dinc, 2017; Malhotra et al., 2007b)

Satisfaction with benefits

Employee satisfaction with perks refers to their degree of satisfaction with organizational perks. Employee benefits are agreements made by businesses for their employees to promote their well-being. These incentives are provided in addition to regular remuneration and are an important component of the overall incentive package. Benefits may include a pension plan, sick pay, or insurance coverage, as well as non-monetary arrangements such as paid leave or vacations. (Armstrong, 2007; Hadziahmetovic & Dinc, 2017)

Promotional opportunities

Promotional opportunity is about satisfaction and adequacy perceived by the employees, and also opportunities for self-development. Opportunities self-development and career development are important since they are the main part of HRM strategies that aim to increase employee loyalty to the organization. Previous researches show that employees want to be more committed to their firm if they note promotional opportunities. (Malhotra et al., 2007b)

Supervision

Employees' perceptions of their supervisor's consideration and satisfaction with him or her are referred to as supervision. Supervisory consideration refers to leader behaviors aimed at boosting their subordinates' comfort and well-being. Employees who have thoughtful superiors and are satisfied with them, according to previous research, are more dedicated to their organization than those who do not. (Malhotra et al., 2007b)

Team support

This is the social incentive that frontline staff feels in terms of friendly and helpful coworkers who work together as a team to provide exceptional service to consumers. Employee attitudes, particularly organizational commitment, are influenced by team support. Team support serves as a conduit for the dissemination of practical information and standards related to front-line employee job functions. (Malhotra et al., 2007c)

Role clarity

The step to which first line employees believe that necessary information regarding how the employee is expected to conduct his/her work is supplied is referred to as role clarity. Employees who believe their occupations have clear roles are more likely to be dedicated to their employers than those who do not. (Armstrong, 2007)

Autonomy

Autonomy is about perceptions of all employees of liberty and flexibility given to them in terms of how they deal with customers and what they do in servicing them. The empowerment technique is highly suggested in the service industry because frontline personnel needs to feel in charge of the quality of service they provide; otherwise, they would feel helpless and unsatisfied with their work.

Feedback

Feedback includes praise and acknowledgment from their boss for a job well (Malhotra et al., 2007b). Employees can be motivated by encouraging and constructive feedback by acknowledging their accomplishments and offering social support to avoid workplace deception. However, offering effective and useful feedback may assist supervisors in developing empathy with workers and encouraging people to share their thoughts to management about how organizational practices or policies should be improved. (Hadziahmetovic & Dinc, 2020)

Training

The perspectives of frontline staff about induction and ongoing and regular training received to provide great service are referred to as training. Training is used to increase employees' interest in the organization. (Malhotra et al., 2007a)

Participation in decision making

This is the stage to which frontline workers believe they have a say in how their jobs are handled (Hadziahmetovic & Dinc, 2017; Malhotra et al., 2007a). Although there is minimal empirical evidence for the three-component approach, participation is considered as an indirect manner of expressing management expectations of work behavior and has been proven to have a substantial impact on organizational commitment.

Skill variety

This relate to employees' opinions of how diverse a set of talents and talents are necessary to accomplish the job, as well as how demanding and monotonous the task is. A variety of skills has been discovered to be an important factor of organizational commitment. (Hadziahmetovic & Dinc, 2017; Malhotra et al., 2007a; Mottaz, 1988)

All types of cash return, physical services, and perks received by a worker as part of an employment association are referred to as rewards. Work rewards relate to all of the advantages that employees obtain from their employment and are key predictors of employee job posture such as organizational loyalty and job pleasure. Extrinsic incentives are those that are the consequence of non-job-related extrinsic circumstances. The organization provides organizational rewards (benefits, pay satisfaction, working conditions, and promotional chances) to motivate performance and retain membership. Social rewards (helpful, altruistic, and supportive co-workers, and considerate mentors) are those derived from collaboration with others at the work. On the other hand, intrinsic incentives are integral in the job's matter. They include employment features that are motivating, such as autonomy, skill diversity, and feedback (Hackman and Oldham, 1976). Role clarity and participation in decision-making and have also been recognized as work qualities and can thus be categorized as intrinsic incentives. Individuals at all levels of the company understand the necessity of constantly improving their abilities and see access to training as an "essential component in the entire incentive package." Training is seen as a significant non-monetary influence and therefore it may be considered as an intrinsic reward. (Malhotra et al., 2007a)

Knowledge is socially generated via the synthesis of many people's points of view. Personal subjective information is, on a social basis, verified and synthesized with others' knowledge through the knowledge conversion process [the Externalization, Socialization, Internalization and (SECI) process], so that knowledge continues to increase. (Nonaka et al., 2000).

The most obvious approach for a firm to reward its staff for proper behavior is with money. Robinson et al., 2005 observed that the majority of organizational incentive systems were monetary after surveying UK construction businesses. To motivate knowledge contributors to share their knowledge and experience, the business might offer various types of economic benefits such as pay increases, bonuses, employment stability, or promotions (Bock & Kim, 2002; Kankanhalli et al., 2005). Evidence from recent empirical papers also provide informations that individuals who get financial rewards for their skills will be more encouraged to share their information, which will lead to the generation of more original, valuable, and innovative ideas. They will believe that monetary remuneration is adequate recompense for their knowledge-sharing activity (Bartol & Srivastava, 2002). Also Calder & Staw, (1975) found that by getting money, an individual will get a higher level of satisfaction.

Lind & Tyler, (1988) recommended that procedural fairness is a significant source of belief in the employee-supervisor interaction. Previous researches indicate that people engage in KM activities because they feel it will help them develop and improve their reputation (Davenport & Prusak, 1998). The influence of organizational incentive on knowledge contribution, according to Kankanhalli et al., (2005) may be restricted by the contributor's organizational identity. If the knowledge contributor has more in common with the business, the contributor is more likely to receive greater monetary compensation from the corporation.

According to Nazish et al., (2019) the presence of extrinsic rewards inside an organization has no effect on not just knowledge generation but also knowledge sharing and application. This is due to the fact that financial rewards can only have a short-term impact rather than long-term impacts. (Huysman & Wit, 2002)

Based on former research and theoretical observations, the following hypotheses were created:

H1 Extrinsic organizational rewards has positive impact on knowledge creation.

- H1a. Working conditions has positive impact on knowledge creation.
- H1b. Pay satisfaction has positive impact on knowledge creation.
- H1c. Satisfaction with benefits has positive impact on knowledge creation.
- H1d. Promotional opportunities has positive impact on knowledge creation.

H2. Extrinsic social rewards has positive impact on knowledge creation.

- H2a. Supervision has positive impact on knowledge creation.

- H2b. Team support has positive impact on knowledge creation.

H3. Intrinsic rewards has positive impact on knowledge creation.

- H3a. Role clarity has positive impact on knowledge creation.
- H3b. Skill variety has positive impact on knowledge creation.
- H3c. Autonomy has positive impact on knowledge creation.
- H3d. Feedback has positive impact on knowledge creation.
- H3e. Training has positive impact on knowledge creation.
- H3f. Participation has positive impact on knowledge creation.

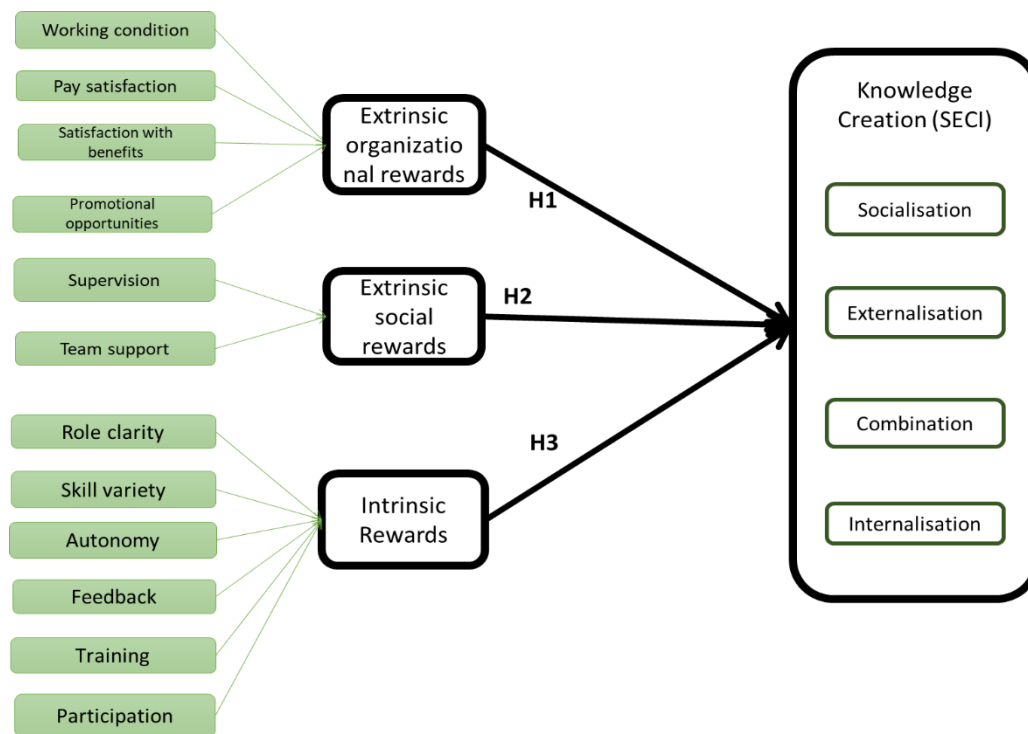


Figure 1. Research model

METHODOLOGY

The study

This research examines the impact of employee rewards on the organizational knowledge creation process. In the theoretical background part, it is explained previous research and papers about this topic. All survey questions were based on literature research. The validity and quality of the selected questions were examined in a variety of studies by several researchers. Nonetheless, survey questions were slightly adjusted for this study. The questions were created in English and translated into Bosnian due to the language area of the respondents.

Sample and data collection

Target population were all individuals who are employed in any of family businesses around Bosnia and Herzegovina. Contact and e-mails of family businesses are found by akta.ba. The business portal akta.ba provides the largest and most up-to-date Register of companies and institutions with over 300,000 legal entities, which, in addition to basic data, offers information on the financial indicators of companies from BH. The simple random sampling was used, that means they were chosen entirely and each member of the population has an equal chance, or probability, of being selected. The five hundred (500) e-mails with the survey were sent to the addresses, of which 200 responded.

The survey was conducted anonymously among employees, and in the introductory part of the questionnaire kindly demanded that they answer honestly so that this research would have credibility and correctness. This research collects 200 surveys of employees from family businesses in Bosnia and Herzegovina. The survey instrument was developed using online survey tools. 200 employees and business owners from 15 different cities completed the survey. The survey was comprised of 54 questions, and among those, 7 questions are about demographic information of participants. To evaluate survey questions, the Likert scale was used. On the scale, 1 was used for the label "Strongly Disagree" and 5 was used for "Strongly Agree." Respondents were 122 (61%) female and 78 (39%) male, which were employed in different sections of family businesses. The 47 respondents (23,5%) were from 20 to 25 years old, 24 (12%) were from 26 to 29 years old, 29 (14,5%) were from 30-35 years old, 34 (17%) were 36-40 years old, and 66 (33%) was 40 old and above. The marriage status, 87(43,5%) respondents that are not married and 113(56,5%) are married. The level of education of those respondents is as follows: 53 (26,5%) finished high school, 86 (43%) have a Bachelor's degree, 57 (28,5%) have a Master's degree, while 4 (2%) have a Ph.D. Additionally, 58 (29%) of respondents have above 5 years of work experience, 40 (20%) have 5 to 10 years, 37 (18,5%) have 10 to 15, and 65. (32.5%) have 15 and more years of work experience. The position in the organization, 116 (58%) responds employees, 24 (12%) first-line manager, 17 (8.5%) responds owner of the business, 32(16%) responds that are managers and 11(5.5%) responds that are directors of the organization. Of the working experience, 58(29%) have less than 5 years of working experience, 40(20%) have 5-10 years of working experience, 37(18,5%) have 10-15 years of working experience.

Instrumentation

The questionnaire was administered using a simple sample approach to obtain the necessary data for this study, which targeted employees in family business. Fifteen categories

of questions were used: demographics, pay satisfaction, working condition, supervision, promotional opportunities, satisfaction with benefits, role clarity, skill variety, team support, feedback, autonomy, training, participation in decision making, internalization, combination, externalization, and socialization.

The questionnaire was used to collect data, which was structured on a 5-point Likert scale with items ranging from 1 (strongly disagree) to 5 (strongly agree).

To measure intrinsic and extrinsic rewards, are adopted already used scale of Malhotra et al., (2007) and Newman & Sheikh (2012) whereas the dependent variables Socialization, Externalization, Combination, and Internalization used the already adapted scale of Nonaka, (1994).

Analytical approach

Standard deviation, mean and correlations between variables were examined in order to analyze the data. Finally, regression analysis was used to test the hypotheses.

RESULTS

Table 1 presents the results of descriptive statistics.

Table 1. Mean, standard deviation and correlations between dependent variables and Knowledge Creation.

Variables	Mean	St Dev	1	2	3	4	5	6	7	8	9	10	11	12	13
Knowledge Creation	3.57	.757	1												
Working condition	4.09	.874	.627**	1											
Pay satisfaction	3.89	1.013	.482**	.716**	1										
Satisfaction with benefits	3.50	1.282	.617**	.598**	.689**	1									
Promotional opportunities	3.67	1.154	.625**	.612**	.641**	.800**	1								
Supervision	4.03	1.001	.598**	.641**	.579**	.583**	.573**	1							
Team support	4.14	.834	.600**	.686**	.590**	.543**	.573**	.728**	1						
Role clarity	4.18	.886	.661**	.642**	.521**	.508**	.566**	.626**	.646**	1					
Skill variety	3.28	1.203	.064	-.010	-.011	.028	-.013	.044	.025	.067	1				
Autonomy	3.48	.983	.060	-.039	.014	-.045	-.048	.001	.035	-.009	.691**	1			
Feedback	3.53	1.033	.101	.050	.045	-.030	-.001	.023	.059	.037	.581**	.703**	1		
Training	3.52	1.050	.110	.013	.019	-.049	-.047	-.051	-.021	-.032	.564**	.610**	.801**	1	
Participation	3.49	1.028	.040	.018	-.004	-.060	-.054	-.042	.001	-.015	.603**	.665**	.722**	.820**	1

Note. $N = 200$. * $p < .05$; ** $p < .01$

The respondents were firstly asked about working conditions in family businesses they are employed in. The usual contributor fair agreed ($M = 4.09$, $SD = .824$). When asked if they were pleased with their income, the typical employee agreed ($M = 3.89$, $SD = 1.01$).

Most participants were neutral for satisfaction with benefits ($M=3.50$, $SD=1.28$) while agreeing for promotional opportunity ($M=3.67$, $SD=1.15$), agree with supervision ($M=4.03$ $SD=1.00$) same as for team support ($M=4.14$ $SD=0.834$), they agree with role clarity ($M=4.18$ $SD=1.20$) while they are natural with skill variety ($M=3.28$ $SD=0.88$). The average participant was neutral with autonomy ($M=3.48$ $SD=0.98$) while they agree with feedback ($M=3.53$ $SD=1.03$). The average participants agree with training ($M=3.52$ $SD=1.05$). However, the average participants show they agree with knowledge creation ($M=3.57$ $SD=.757$).

Cronbach's alpha and exploratory factor analysis were used initially to assess the validity of the scales in this investigation (Table 2). The factor extraction technique was principal component analysis, and the factor loading rotation was varimax (Cohen, 1988a). Factor loadings represent the amount of correspondence between the variable and the factor; hence, the greater the loadings, the more representative the variable is of the factor.

Table 2. Cronbach's alpha and Factor loading

Organizational Rewards	Factor Loading	Cron. Alpha
<i>1. Working condition</i>		.856
My working conditions at my workplace are satisfactory to me.	.799	
The workplace environment are suitable for doing a good job.	.756	
<i>2. Pay satisfaction</i>		.907
I am pleased with the compensation I earn for the work I accomplish.	.858	
In comparison to other organizations in my nation, I am pleased with my compensation.	.828	
I believe I am appropriately compensated for the work I do.	.806	
<i>3. Satisfaction with benefits</i>		.898
I am pleased with the collection of extra advantages.	.846	
The fringe benefits package is comparable to what other companies provide.	.828	
<i>4. Promotional opportunities</i>		.898
My workplace's promotion policy is satisfactory in my opinion.	.802	
My employment provides enough opportunities for growth (improvement).	.776	
<i>5. Supervision</i>		.950
My supervisor is friendly and personable.	.781	
My supervisor contributes to making my job more enjoyable.	.832	
My supervisor regards all of his or her employees as equals.	.809	
My supervisor's technical expertise has satisfied me.		
I am confident in my supervisor's abilities to guide me.	.865	

I am pleased with how my supervisor assists me in achieving my objectives.	.840	
<i>6. Team support</i>		.908
My coworkers assist me in completing my tasks.	.838	
I am pleased with my coworkers' helpful attitude at work.	.837	
In organization activities, everyone participates to a team effort.	.755	
My coworkers and I collaborate more than we compete.	.805	
<i>7. Role clarity</i>		.795
Clear planned goals/objectives exist for my job.	.906	
know exactly what is expected of me in my job.	.910	
know how my performance is going to be evaluated.	.815	
feel certain about the level of authority I have.	.802	
I know what my responsibilities are.	.823	
<i>8. Skill variety</i>		.824
The job requires me to use a number of complex skills.	.815	
My work is not easy.	.712	
<i>9. Autonomy</i>		.802
My employment permits me to utilize my own initiative to do the work.	.862	
The position allows me to be creative in how I perform my work.	.568	
On the job, I have the flexibility to do whatever I want in order to please clients, project partners, and so on.	.604	
<i>10. Feedback</i>		.695
My superior recognizes me for giving excellent service.	.662	
My manager commends me for delivering excellent service to clients, project partners, and others.	.716	
<i>11. Training</i>		.784
At the start of my job, I get induction training.	.836	
I receive normal training to keep me efficient for good service.	.813	
<i>12. Participation in decision making</i>		.859
I have the ability to influence my superior's judgments about matters pertaining to my business.	.829	
When an issue arises, my superior asks for my opinion.	.669	
I believe it is simple to communicate job-improvement suggestions to my boss.	.792	
<i>13. Socialization</i>		.860
At the organization, detailed face-to-face conversations about work difficulties are encouraged.	.671	
To address the status of work concerns, the organization holds seminars, meetings, and workshops.	.764	
The group promotes casual gatherings with tea, coffee, lunch, and other refreshments.	.629	
Outside of the job, the group promotes social events.	.633	
<i>13. Externalization</i>		.917
The company records its employees' perspectives on key issues.	.854	
The business requests that its employees submit information gleaned through customer and project partner feedback.	.692	
The organization records the outcomes of meetings, seminars, workshops, conferences, and training programs.	.867	
Based on its expertise, the company generates reports regarding customers, project partners, rivals, and others.	.861	
The organization records its employees' beneficial experiences and expertise in	.863	

reports.	
14. <i>Combination</i>	.931
The organization classifies information from files, stores, systems, and reports.	.879
The organization updates its records.	.878
The organization considers information mentioned in databases, networks, and previous reports to develop its rules and decisions.	.891
The organization uses documented information as a way of connection between its staff, and its connection with external bodies.	.893
The organization collects, classifies, and informs its staff members about rules and decisions regulations issued by external bodies.	.871
15. <i>Internalization</i>	.387
The organization encourages its staff members to join postgraduate courses e.g. Masters, PhD, Diploma, Postdoc.	.648
The organization makes it easier to obtain the results and suggestions of training programs, workshops, and seminars.	.622
To get necessary information, the organization enables access to its databases and the internet.	.709
Meetings are organized by the organization to clarify the substance of relevant papers or documents.	-.712

Based on the preceding table, it is possible to conclude that the factor loadings for all independent and dependent variables are significant (.50 or above), since, as stated by F. Hair Jr et al., (2014)

The following rule of thumb was created by: George & Mallery, (2003) for Chronbach's Alpha internal consistency: for Chronbach's Alpha internal consistency is as follows: " $\alpha > .6$ – Questionable, $\alpha > .9$ – Excellent, $\alpha > .5$ – Poor $\alpha > .8$ – Good, $\alpha > .7$ – Acceptable and $\alpha < .5$ – Unacceptable. According to rules of thumb reliability test is as it follows: dependent variables: Socialization ($\alpha = .860$) good, externalization ($\alpha = .917$) excellent, combination ($\alpha = .931$) excellent, internalization ($\alpha = .387$) unacceptable. Independent variables: working condition ($\alpha = .856$) good, pay satisfaction ($\alpha = .907$) excellent, satisfaction with benefits ($\alpha = .898$) good, promotional opportunities ($\alpha = .898$) good, supervision ($\alpha = .950$) excellent, team support ($\alpha = .908$) excellent, role clarity ($\alpha = .795$) acceptable, skill variety ($\alpha = .824$) good, autonomy ($\alpha = .802$) good, feedback ($\alpha = .695$) acceptable, training ($\alpha = .784$) acceptable, participation in decision making ($\alpha = .859$) good.

Before running a simple linear model, it is important to define whether there is enough data to support a linear connection. As a result, the hypotheses and sub-hypotheses in Table 4 were first examined by Pearson's r to see if there is a correlation between the variables. (Cohen, 1988) claimed that the effect size for Pearson's r is as follows: large = .50 medium = .30 – .50; small = .10 – .30. Following that, linear regressions (Kathryn M. Bartol, et al., 2002) were used to determine the link between the sub-hypotheses, as shown in Tables 4.

Table 3. Regression analysis with Knowledge Creation (SECI) as the outcome variable

Predictors	β	t	F	df	p	R^2
Extrinsic organizational rewards	.661	12.408	153.957	1, 199	.000	.437
Working conditions	.627	11.322	128.180	1, 199	.000	.393
Pay satisfaction	.482	7.741	59.917	1, 199	.000	.232
Satisfaction with benefits	.617	11.025	121.557	1, 199	.000	.380
Promotional opportunities	.625	11.265	126.890	1, 199	.000	.391
Extrinsic social rewards	.640	11.724	137.453	1, 199	.000	.410
Supervision	.598	10.502	110.290	1, 199	.000	.358
Team support	.600	10.561	111.525	1, 199	.000	.360
Intrinsic rewards	.187	2.684	7.205	1, 199	.008	.035
Role clarity	.661	12.409	153.993	1, 199	.000	.437
Skill variety	.064	.897	.804	1, 199	.371	.004
Autonomy	.060	.850	.722	1, 199	.397	.004
Feedback	.101	1.423	2.024	1, 199	.156	.010
Training	.110	1.554	2.413	1, 199	.122	.012
Participation	.040	.560	.313	1, 199	.576	.002

All hypotheses are statistically significant ($p < .005$) also the sub-hypotheses also except H3b, H3c, H3d, H3e, and H3f ($p > .005$). The results are shown in Table 4.

Table 4. Summary of hypotheses results

Hypothesis #	Hypothesis	Remark
H1	Extrinsic organizational rewards has positive impact on knowledge creation.	Supported
H1a	Working conditions has positive impact on knowledge creation.	Supported
H1b	Pay satisfaction has positive impact on knowledge creation.	Supported
H1c	Satisfaction with benefits has positive impact on knowledge creation.	Supported
H1d	Promotional opportunities has positive impact on knowledge creation.	Supported
H2	Extrinsic social rewards has positive impact on knowledge creation.	Supported
H2a	Supervision has positive impact on knowledge creation.	Supported
H2b	Team support has positive impact on knowledge creation.	Supported
H3	Intrinsic rewards has positive impact on knowledge creation.	Supported
H3a	Role clarity has positive impact on knowledge creation.	Supported
H3b	Role clarity has positive impact on knowledge creation.	Not Supported
H3c	Autonomy has a positive impact on knowledge creation.	Not supported
H3d	Feedback has positive impact on knowledge creation.	Not supported
H3e	Training has positive impact on knowledge creation.	Not supported
H3f	Participation has positive impact on knowledge creation.	Not supported

When previously said, as the factor loadings increase, the variable of the factor becomes more explanatory (F. Hair Jr et al., 2014) Chronbach's alpha was an indicator of test reliability excellent ($\alpha \geq .9$) for externalization, combination, supervision, and team support, good for socialization, working condition, satisfaction with benefits, promotional opportunity, skill variety, autonomy and participation in decision making ($.9 > \alpha \geq .8$), acceptable ($.8 \alpha \geq .7$) for role clarity, training and feedback unacceptable ($\alpha < .5$) for internalization.

Hypothesis 1 consists of four sub-hypotheses: H1a, H1b, H1c, and H1d promotional opportunities (PO), satisfaction with benefits (SWB), work condition pay (WC), pay satisfaction (PS). All of them have a positive impact on knowledge creation. According to the regression study results, extrinsic organizational rewards explained 43.7% of the variation, $R^2 = .437$, $F(1, 199) = 153.957$, $p < .000$. Extrinsic organizational incentives predicted knowledge generation significantly, $\beta = .661$, $t = 12.408$, $p < .000$. Extrinsic organizational rewards have a positive impact on knowledge creation. Promotional opportunities, pay satisfaction, working conditions, and satisfaction with benefits are found to have a stronger effect on the knowledge creation process. Money is the most apparent way for a company to reward its employees for appropriate behavior. Robinson et al., 2005 conducted a survey of UK construction companies and discovered that the majority of organizational reward systems were monetary in nature. Armstrong, 2007 found that working conditions can increase the quality of life at work. According to Edgar & Geare, 2005, the most constant and statistically significant variable influencing all workplace attitude-related elements was a safe and excellent working condition. Employees spend a lot of their time at the working place, so good working conditions provided by the organization will have an important role in rewarding employees. To improve organizational knowledge of employees firms can make office place wide and comfortable and provide adequate equipment for work. To encourage knowledge contributors to share their expertise and experience, the company may give a variety of economic rewards such as pay increases, bonuses, employment stability, or promotions. (Bock & Kim, 2002; Kankanhalli et al., 2005) According to Edgar & Geare, 2005 the most constant and statistically significant variable influencing all workplace attitude-related elements was a safe and excellent working condition.

Hypothesis 2 involves 2 sub-hypotheses: H2a and H2b are supervision and team support. Both sub-hypotheses have a positive impact on knowledge creation. Simple linear regression was used to investigate whether intrinsic rewards have a positive impact on knowledge creation. The results of the analysis suggested that intrinsic rewards explained 3.5% of the variance, $R^2 = .035$, $F(1, 199) = 7.205$, $p < .008$. Intrinsic rewards significantly impact knowledge creation, $\beta = .187$, $t = 2.684$, $p < .008$. Social rewards contain of team support and supervision. They both have a significantly positive impact on knowledge creation.

Organizations and firms should learn their supervision to be good leaders and to support colleagues at work. By Malhotra et al., 2007c extrinsic social rewards (supervision and team support) were not found to be beneficial in call centers.

The hypothesis H3 involves six sub-hypotheses (H3a, H3b, H3c, H3d, H3e, H3f) autonomy, role clarity, skill variety, training, feedback, and participation. Role clarity has a positive impact on knowledge creation while other sub-hypotheses are not supported. Simple linear regression was used to investigate whether intrinsic rewards have a positive impact on knowledge creation. The results of the analysis suggested that intrinsic rewards explained 3,5% of the variance, $R^2 = .035$, $F(1, 199) = 7.205$, $p < .008$. Intrinsic rewards significantly impact knowledge creation, $\beta = .187$, $t = 2.684$, $p < .008$.

However, employees, like everyone else, want to know what is expected of them and have some degree of autonomy in performing their duties. Firms should give some autonomy to their employees because a lack of autonomy can reduce their level of productivity.

Nazish et al., 2019 found that intrinsic rewards have a significant positive relationship with an individual's KMP in the organization.

THEORETICAL AND PRACTICAL IMPLICATIONS

Knowledge is a critical asset of an organization (Krogh et al., 2000; Nonaka, 1994) Anything that can encourage, sustain, or strengthen the conduct of individuals in an organization is characterized as a reward. Individual-based reward systems benefit the company since they motivate employees to share their knowledge. While the most significant barrier to employee knowledge sharing has been identified as a lack of rewards. (Zawawi et al., 2011) Most of the studies confirmed that the behaviors of employees can be varied to share knowledge, because of the established reward system. In this study, hypotheses confirm that all three types of rewards have a significant impact on organizational knowledge creation. Thus this research study can be viewed as an extension for future studies. The outcomes of this study offer the importance of a reward system in a family business. The study can be used as predictors to give an insight into reward managers should pay attention in order to improve one's engagement and affection toward the association, which would increase efficiency levels and enhance results.

LIMITATIONS AND FUTURE DIRECTIONS

This research, like many other studies, has limitations. The study's emphasis was on family business in Bosnia and Herzegovina, which included many family businesses in a nation, therefore the results were confined to only a subset of employees hired in the family business.

Another limitation is that respondents could be more subjective in family business because mostly they are the owners of the company. The recommendation for future research is to take a larger sample size and not to focus just on Bosnia and Herzegovina because the number of family businesses is small.

CONCLUSION

The key goal of this research is to inspect the significance of social, intrinsic and extrinsic organizational rewards as elements of organizational knowledge creation at family businesses located in Bosnia and Herzegovina. It is deeply explained SECI model, types of rewards, in family organizations. All three hypotheses have a positive impact on organizational knowledge creation. Among 12 types of rewards autonomy, feedback, skill variety, training, and participation was found to have a statistically non-significant positive impact on organizational knowledge creation, while supervision, pay satisfaction, working condition, satisfaction with benefits, promotional opportunities, team support, and role clarity have a statistically significant positive impact on organizational knowledge creation.

Other publications provide significant evidence for the relationship between three sorts of rewards and an individual's knowledge management habits (Bartol & Srivastava, 2002). This research also found a slight impact of intrinsic rewards on knowledge creation, but a strong impact of extrinsic rewards results in knowledge creation. However, the study by Jahani et al., (2011), demonstrated that extrinsic rewards do not significantly impact knowledge sharing behavior. There are some other findings that also deliver proof that rewards do not have a significant relationship with employee's behaviours toward knowledge sharing (KS) (Rowley et al., 2012).

The technique presented in this study might serve as a source for future evaluations of knowledge creation and rewards systems. The findings of this study should be viewed largely in terms of what factors managers should consider when creating rewards systems for knowledge creation and how those elements interact with one another.

This research will help owners and managers of the family business to identify the importance of rewards to make better and more efficient organizational knowledge. Based on the number of findings, this study adds to the literature on reward types, knowledge production, and family businesses. Future research could strengthen the findings of this study by comparing the impact of rewards on the family business as well as on the public sector. Other future research work could extend the analysis to the Balkan region and compare whether and how different cultures and religions affect rewarding system in the organization.

REFERENCES

- Armstrong, M. (2007). *A handbook of employee reward management and practice* (2nd ed) [Electronic resource]. Kogan Page. <http://www.myilibrary.com?id=91580>
- Bartol, K. M., & Srivastava, A. (2002). Encouraging Knowledge Sharing: The Role of Organizational Reward Systems. *Journal of Leadership & Organizational Studies*, 9(1), 64–76. <https://doi.org/10.1177/107179190200900105>
- Bock, G.-W., & Kim, Y.-G. (2002). Breaking the Myths of Rewards: An Exploratory Study of Attitudes about Knowledge Sharing. *IRMJ*, 15, 14–21. <https://doi.org/10.4018/irmj.2002040102>
- Calder, B. J., & Staw, B. M. (1975). Self-perception of intrinsic and extrinsic motivation. *Journal of Personality and Social Psychology*, 31(4), 599–605. <https://doi.org/10.1037/h0077100>
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed). L. Erlbaum Associates.
- Davenport, T., & Prusak, L. (1998). Working Knowledge: How Organizations Manage What They Know. In *Ubiquity* (Vol. 1). <https://doi.org/10.1145/348772.348775>
- Edgar, F., & Geare, A. (2005). HRM practice and employee attitudes: Different measures - Different results. *Personnel Review*, 34, 534–549. <https://doi.org/10.1108/00483480510612503>
- Emerson, R. M. (1976). Social Exchange Theory. *Annual Review of Sociology*, 2(1), 335–362. <https://doi.org/10.1146/annurev.so.02.080176.002003>
- F. Hair Jr, J., Sarstedt, M., Hopkins, L., & G. Kuppelwieser, V. (2014). Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. *European Business Review*, 26(2), 106–121. <https://doi.org/10.1108/EBR-10-2013-0128>
- George, D., & Mallery, P. (2003). SPSS for Windows Step-by-Step: A Simple Guide and Reference, 14.0 update (7th Edition). [http://Lst-liep.liep-Unesco.Org/Cgi-Bin/Wwwwi32.Exe/\[In=epidoc1.in\]/?T2000=026564/\(100\)](http://Lst-liep.liep-Unesco.Org/Cgi-Bin/Wwwwi32.Exe/[In=epidoc1.in]/?T2000=026564/(100)).
- Hadziahmetovic, N., & Dinc, M. S. (2017). The Mediating Role of Affective Commitment in the Organizational Rewards– Organizational Performance Relationship. *International Journal of Human Resource Studies*, 7(3), 105. <https://doi.org/10.5296/ijhrs.v7i3.11454>
- Hadziahmetovic, N., & Dinc, M. S. (2020). Linking reward types to organizational performance in Central and Eastern European universities: The mediating role of affective commitment. *Journal of East European Management Studies*, 25(2), 325–359. <https://doi.org/10.5771/0949-6181-2020-2-325>
- Huysman, M., & Wit, D. (2002). *Knowledge Sharing in Practice* (Vol. 4). <https://doi.org/10.1007/978-94-015-9992-4>
- InsideB, E. (2012). IFC Family Business Governance Handbook. 2012, 60.
- Jahani, S., Ramayah, T., & Abdullah Effendi, A. (2011). Is Reward System and Leadership Important in Knowledge Sharing Among Academics? *American Journal of Economics and Business Administration*, 3, 87–94. <https://doi.org/10.3844/ajebasp.2011.87.94>
- Kankanhalli, A., Tan, B., & Wei, K. (2005). Contributing Knowledge to Electronic Knowledge Repositories: An Empirical Investigation. *MIS Quarterly*, 29, 113–143. <https://doi.org/10.2307/25148670>
- Kathryn M. Bartol, University of Maryland, & College Park. (2002). Encouraging Knowledge Sharing: The Role of Organizational Reward Systems. 2002.
- Katz, R., & Van Maanen, J. (1977). The Loci of Work Satisfaction: Job, Interaction, and Policy. *Human Relations*, 30(5), 469–486. <https://doi.org/10.1177/001872677703000505>
- Krogh, G. V., Ichijo, K., & Nonaka, I. (2000). From Managing to Enabling Knowledge. In *Enabling Knowledge Creation*. Oxford University Press, 2000. <https://oxford.universitypressscholarship.com/view/10.1093/acprof:oso/9780195126167.001.0001/acprof-9780195126167-chapter-1>
- Li, Y.-H., Huang, J.-W., & Tsai, M.-T. (2009). Entrepreneurial Orientation and Firm Performance: The Role of Knowledge Creation Process. *Industrial Marketing Management*, 38, 440–449. <https://doi.org/10.1016/j.indmarman.2008.02.004>
- Lin, C.-P. (2007). To Share or Not to Share: Modeling Tacit Knowledge Sharing, Its Mediators and Antecedents. *Journal of Business Ethics*, 70, 411–428. <https://doi.org/10.1007/s10551-006-9119-0>
- Lind, E., & Tyler, T. (1988). The Social Psychology of Procedural Justice. In *Contemporary Sociology* (Vol. 18). <https://doi.org/10.2307/2073346>

- Malhotra, N., Budhwar, P., & Prowse, P. (2007a). Linking rewards to commitment: An empirical investigation of four UK call centres. *The International Journal of Human Resource Management*, 18(12), 2095–2128. <https://doi.org/10.1080/09585190701695267>
- Malhotra, N., Budhwar, P., & Prowse, P. (2007b). Linking rewards to commitment: An empirical investigation of four UK call centres. *The International Journal of Human Resource Management*, 18(12), 2095–2128. <https://doi.org/10.1080/09585190701695267>
- Malhotra, N., Budhwar, P., & Prowse, P. (2007c). Linking Rewards to Commitment: An Empirical Investigation of Four UK Call Centres. *International Journal of Human Resource Management*, 18. <https://doi.org/10.1080/09585190701695267>
- Mottaz, C. J. (1988). Determinants of Organizational Commitment. *Human Relations*, 41(6), 467–482. <https://doi.org/10.1177/001872678804100604>
- Nahapiet, J., & Ghoshal, S. (1998). Social Capital, Intellectual Capital, and the Organizational Advantage. *The Academy of Management Review*, 23. <https://doi.org/10.2307/259373>
- Nazish, A., Aslam, S., & Farooqi, Y. A. (2019). *IMPACT OF REWARDS AND FULL RANGE LEADERSHIP STYLES ON KNOWLEDGE MANAGEMENT PRACTICES*. 20(4), 13.
- Newman, A., & Sheikh, A. (2012). Organizational rewards and employee commitment: A Chinese study. *Journal of Managerial Psychology*, 27, 71–89. <https://doi.org/10.1108/02683941211193866>
- Nonaka, I. (1994). *A Dynamic theory of organizational knowledge creation*.
- Nonaka, I. (2007, July 1). The Knowledge-Creating Company. *Harvard Business Review*. <https://hbr.org/2007/07/the-knowledge-creating-company>
- Nonaka, I., & Noboru, N. (1998). *The concept of BA*.
- Nonaka, I., Toyama, R., & Konno, N. (2000). SECI, Ba and Leadership: A Unified Model of Dynamic Knowledge Creation. *Long Range Planning*, 33(1), 5–34. [https://doi.org/10.1016/S0024-6301\(99\)00115-6](https://doi.org/10.1016/S0024-6301(99)00115-6)
- Porter, W., & Lawler, E. (1968). *The Motivation to work*. 1968.
- Robinson, H., Carrillo, P., Anumba, C., & Al-Ghassani, A. (2005). Knowledge management practices in large construction organisations. *Engineering Construction & Architectural Management*, 12. <https://doi.org/10.1108/09699980510627135>
- Rowley, J., Seba, I., & Delbridge, R. (2012). Knowledge sharing in the Dubai Police Force. *J. Knowledge Management*, 16. <https://doi.org/10.1108/13673271211198972>
- Senge, P. M. (1994). *The fifth discipline: The art and practice of the learning organization* (1. Currency paperback ed). Currency Doubleday.
- Wang, Y., Lo, H., Chi, R., & Yang, Y. (2004). An Integrated Framework for Customer Value and Customer-Relationship-Management Performance: A Customer-Based Perspective from China. *Managing Service Quality*, 14, 169–182. <https://doi.org/10.1108/09604520410528590>
- Zawawi, E., Kamaruzzaman, S. N., Ithnin, Z., & Zulkarnain, S. (2011). A Conceptual Framework for Describing CSF of Building Maintenance Management. *Procedia Engineering*, 20, 110–117. <https://doi.org/10.1016/j.proeng.2011.11.145>

APPENDIX

SAMPLE CHARACTERISTICS

Variable	Demographics	Number	Valid percentage
Gender	Male	78	39%
	Female	122	61%
Age	20-25	47	23,5%
	26-29	24	12%
	30-35	29	14,5%
	36-40	34	17%
	40 and above	66	33%
	High school	53	26,5%
Level of education	Bachelor degree	86	43%
	Master degree	57	28,5%
	Ph.D.	4	2%
Marriage status	Married	113	56,5%
	Single	87	43,5%
Total work experience	Under 5 years	58	29%
	5-10 years	40	20%
	10-15 years	37	18,5%
	15 years and more	65	32,5%
Position in firm/organization	Employees	116	58%
	First line manager	24	12%
	Owner	17	8,5%
	Manager	32	16%
	Director	11	5,5%