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IMPROVING ORGANIZATIONAL LEARNING BY SHARING INFORMATION THROUGH INNOVATIVE SUPPLY CHAIN IN AGRO-FOOD COMPANIES FROM BOSNIA AND HERZEGOVINA

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Abstract: *Innovation is essential for long-term success in business and companies need to develop an innovative supply chain to respond to environmental and market challenges. It is necessary to develop knowledge through organizational learning in order to strengthen the ability of companies to innovate. An innovative supply chain is the basis for developing innovation in companies. To improve its market position companies should continuously receive high quality information from participants in the supply chain by sharing information. The complexity of relationships within supply chain affecting organizational learning is the subject of this study. We conducted an empirical study focusing our attention on agro-food companies in Bosnia and Herzegovina. A questionnaire was used as a data collection tool applying random systematic sampling and a total of 159 companies took part in this study. The empirical findings showed that sharing of information has a significant linkage with an innovative supply chain, but only in establishing partnerships with customers. We confirmed that an innovative supply chain is essential for development of organizational learning and agile supply chain. The findings could assist the managers of agro-food companies in Bosnia and Herzegovina to improve their business. This study provides guidance for improving business using supply chains.*

Key words: *sharing information, innovative supply chain, organizational learning, buyer-supplier relationships, structural equation model.*

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1. Introduction

Innovation is a basis for creating an innovative supply chain and it is very important for success of small and large enterprises (Bag, 2018). In order to implement an innovative supply chain any company should be oriented to set up strategic directions that will promote innovation in their business. An innovative supply chain also requires proper communication with suppliers and buyers. Suppliers are an important element of an innovative supply chain because they are the source of innovative ideas and key technologies (Wang, et al, 2011). The key segments in every supply chain are customers. If customers are not satisfied with the products, they will not buy them. Customers are the driving force of innovative activities in the company. They are the reasons why companies innovates their business and products. It is necessary for customers to receive new enhanced products that are developed according to their requirements (Wagner and Bode, 2014). Innovation in today's dimensional business environment requires complex knowledge (Bag, 2018). And scholars emphasize the key role of innovation and organizational learning in improving the company's competitive advantage (Jiménez-Jiménez & Sanz-Valle, 2011).

Companies cooperate with suppliers in research and development, in production, and collect information from suppliers (Kawai, et al, 2013). In cooperation with suppliers, companies innovate products to meet the increasing demands of customers. In this process information sharing is a key activity. Through the establishment of a partnership relationship, companies receive information that helps them to reduce business uncertainty (Tai & Ho, 2010). The company receives from the customer the necessary information what they want and what are their needs. Thanks to this information, the company can adapt to these needs and offer new or customized products. In these processes the exchange of information with partners becomes a precondition for developing innovative business in the company. When exchanging information with key partners, not only information is exchanged but also data and knowledge (Kembro & Näslund, 2014). Through such information exchange, companies increase their organizational skills.

This study is focused on complex interactions within supply chain. We especially analysed the way in which information is exchanged through buyer-supplier relationships on an innovative supply chain, and how innovative supply chain acts on agility of the supply chain and organizational learning. This relationship was observed on the example of agro-food companies in Bosnia and Herzegovina. The importance of this paper can be found in the fact that it provides necessary information about how the buyer-supplier relationships are important for development of innovative supply chains and how influential on innovative supply chain are suppliers or customers through the exchange of timely information. We examined whether agro-food companies in Bosnia and Herzegovina how exchange information with customers and suppliers, and how they use this information when establishing an innovative supply chain in order to improve their organizational knowledge. Understanding the way in which information is exchanged by developing an innovative supply chain and influencing organizational learning is the main significance of this study. Based on the survey, we explored how companies use information sharing in business consolidation. The findings enable identification of

major recommendations for companies in order to improve their competitiveness and market performance. The results obtained will assist managers of agro-food companies in Bosnia and Herzegovina to recognize the importance of sharing information in the operations of these companies. Furthermore, the role of suppliers and customers in the sharing of information will be considered. On the basis of this finding, managers can learn how to improve their cooperation with them in order to improve the quality of information and accordingly to make supply chain more innovative. Managers will also be given the answer whether an innovative supply chain is more agile and whether it increases the knowledge of the organization. Based on this, the following research objectives are set:

1. To explore the application of information sharing and partner relationships with the buyers and suppliers to establish an innovative supply chain;
2. To study the impact of an innovative supply chain on agility and organizational learning in agro-food companies in Bosnia and Herzegovina;
3. To test the proposed model and examine the direct and indirect effects used in the model.

2. Literature review

We booked this section to present our research model, hypotheses and theoretical framework of the study. Within the research model, several constructors were used: information sharing, buyer-supplier relationships, an innovative supply chain, an agile supply chain, and organizational learning. The mentioned constructors are explained in this part of the paper.

This study highlighted the importance of sharing information in establishing partnerships and observed how sharing information and relationships with customers and suppliers affect the functioning of an innovative supply chain. We examined whether the sharing of information influences an innovative supply chain, or only in the course of establishing partnership relationships, innovation of the supply chain is also established. The study examined the individual impact of partner relationships with buyers and suppliers on the establishment of an innovative supply chain. We considered direct and indirect impacts of information sharing on an innovative supply chain. The findings will enable to understand these relationships in agro-food companies in order to improve an innovative supply chain by sharing information.

The second part of the model explored the impact of an innovative supply chain on supply chain agility and organizational learning. This established relationship made it possible to understand whether an innovative supply chain contributes in improving speed of supply chain operations and whether it contributes to increasing company knowledge. This model will examine, in two different parts, the complex relations that prevail in agro-food companies in Bosnia and Herzegovina. The model represents a new perspective on the complexity of relationships within the supply chain.

In order to carry out this study, the following steps were set in this study:

1. Establishing the model based on the research constructors;

2. Investigating relevant literature and set up the questionnaire;
3. Passing the questionnaire and collecting data from agro-food companies in Bosnia and Herzegovina;
4. Processing data and testing the model and hypotheses of this study;
5. Presenting the findings;
6. Highlighting the most important results of this study and give recommendations for future research.

2.1. Sharing information

One of the most important segments of partnership is the exchange of information. The exchange of information is exchange of important information between partners in the supply chain (Lee & Ha, 2018). During establishment of collaboration within supply chain, sharing information is an important dimension and is in the focus of all partners within the supply chain (Chen, et al, 2011). During the exchange of information is necessary to implement two-way communication between partners. In doing so, not only information is exchanged, but also knowledge among partners. The exchange of information between the buyer and the supplier is of essential interest in building long-term trust based relationships (Eckerd & Hill, 2012). When exchanging information, it is crucial to determine the level of information sharing and the quality of information being exchanged. With true and precise information companies can respond to market changes. The efficiency of information sharing is not limited to the question "whether the information is shared or not," but also include the question "what kind of information is shared" and "when and how information is shared" (Li et al., 2014). When sharing information, partners in the supply chain develop mutual trust and belief that their partner will not break the deal by unethical behavior (Eckerd & Hill, 2012). With increasing trust among partners, reduction of transaction costs and a greater exchange of information between partners occur (Li, et al, 2017). Trust among partners grows with the development of partner relationships (Rogers & Fells, 2018). It is therefore important to develop a mutual relationship between partners based on trust. With the exchange of information in the supply chain, trust among partners is raised. Higher exchange reduces risk and uncertainty and increases the level of trust in relationships (Nyaga, et al, 2010). Based on all of the above, the following hypotheses of research are set:

H1: Sharing information has a significant positive impact on partner relationships with the suppliers

H2: Sharing information has a significant positive impact on partner relationships with customers

H3: Sharing information has a significant positive impact on innovativeness of supply chain.

2.2. Buyer-supplier relationship

Researchers noted that partnerships with suppliers and customers have a role in achieving business results (Faraz, et al, 2018). Zacharia et al. (2011) emphasized

that managing relationships with customer and suppliers is essential for success of the supply chain. The effects gained partner relationship for suppliers and customers are two-folded: the affective basis where the supplier is devoted to the customer, and the cognitive basis where the supplier acquires enough knowledge through the exchange of information to improve performance (Shou, et al, 2013). It is therefore important that each company develops its buyer-supplier relationships. Companies are ready to establish strong partnerships with key customers and suppliers. Strong partnership is an opportunity to increase the success of partners rather than they work separately (Faraz, et al, 2018). In order to achieve desired benefits it is necessary to build a strong relationship with key partners in the supply chain. The most important key partners for the company's business are customers and suppliers. Chen & Wu (2010) showed that the transaction costs of the company can be reduced by strengthening cooperation with customers and suppliers. In order to reduce production costs companies transfer their business processes through outsourcing to suppliers, thus the ability to manage relationships with suppliers becomes very important (Faraz, et al, 2018). Furthermore, in order to improve product's quality and other business parameters such as costs and delivery times, it is necessary to have an efficient and capable supplier (Joshi, et al, 2016). During the establishment of relations communication, information sharing and joint activities facilitate knowledge transfer and assist suppliers to improve their innovation performance (Kim, et al, 2017). Having this in mind we set up the following hypotheses:

H4: Supplier relationship has a significant positive impact on innovativeness of supply chain.

H5: Customer relationship has a significant positive impact on innovativeness of supply chain.

2.3. Innovative supply chain

In order to offer new and more diversified products to customers, it is necessary to innovate in production and business processes (Joshi, et al, 2016). Innovation assists for companies to face with turbulent environment and it is a main driver of long-term success in the business (Jiménez-Jiménez & Sanz-Valle, 2011). Companies strive to adopt technological innovations that should deliver better business results. Without innovation, companies are not able to make adaptation to change. Innovations trigger changes in the environment. It is necessary to build an innovative supply chain in the company. The main elements of an innovative supply chain are: Supply Chain of Business Processes, Supply Chain Structure Network, and Supply Chain Technology (Arlbjorn, et al, 2011). Those companies oriented to build an innovative supply chain need to incorporate innovation in all processes of the company to meet the demands of the market. Furthermore, an innovative supply chain needs to be based on continuous improvements. For establishing innovative supply chain, it is necessary to include suppliers and customers. Suppliers are the source of innovative ideas and key technologies (Wang, et al, 2011), while customers are the drivers of innovative activities in the company. In order to respond to customer demands, it is necessary to provide new enhanced products that have been developed according to these requirements (Wagner & Bode, 2014). By developing innovative supply chain, companies have a more flexible and faster response to the

demands placed on the market. Having this in mind, the following hypotheses are posed in this study:

H6: Innovative supply chain has a significant positive impact on agile supply chain.

H7: Innovative supply chain has a significant positive impact on organizational learning.

2.4. Agility

Agile supply chain is considered a key factor of success in the market. It allows companies to be more sensitive to signals on the market (Chan, et al, 2017). The concept of agility was introduced as a means by which the company adjusts to changes in the market (Gligor, et al, 2015). Agility should be applied when demand is unstable and customer demands are complex and varied. The concept of an agile supply chain has been introduced due to the complexity of the market. Agility is a mechanism that enables the company to establish a fast and flexible supply chain in terms of customizing customer requirements and market changes. An agile supply chain is defined as a strategic capability that enables the company to quickly feel and react to internal and external uncertainty through the effective integration of supply chain relationships (Fayezi, et al, 2015). In order to create an agile supply chain it is necessary to have developed internal and external integrations in the company. Internal and external integration affects the company's ability to introduce agility in the supply chain (Fayezi, et al, 2016). It is therefore necessary to achieve synergy of different forms of flexibility from all sides in the supply chain to empower the company to respond effectively to a highly volatile marketplace (Chan, et al, 2017). In order to improve the agility of the supply chain, it is necessary to apply company integrations that are accompanied by organizational learning (Braunscheidel & Suresh, 2009). Based on this, the following hypothesis is posed in this study:

H8: Agile supply chain has a significant positive impact on organizational learning.

2.5. Organizational learning

Organizational learning is a process that develops new knowledge through access to common experiences of people in the company and has the potential to influence the behavior of employees and improve the ability of companies (Jiménez-Jiménez & Sanz-Valle, 2011). For the company, it is very important to create new competencies to deal with changes in the market and to adapt to the requirements of customers. With new knowledge, the company builds a competitive advantage. Organizational learning can strengthen the company's ability to identify opportunities and seek new approaches to deal with changes in the environment. Based on this, organizational learning is seen as the basis for achieving sustainable competitive advantage and for improving the efficiency of the enterprise (Sanz-Valle, et al, 2011). The basic assumption is that organizational learning plays a key role and enables companies to achieve speed and flexibility in the innovation process. Organizational learning and innovation relate positively to each other (Jiménez-Jiménez & Sanz-Valle, 2011). Organizing learning contributes to improving company

performance, competitiveness of the company, innovative activities, etc. (Braunscheidel & Suresh, 2009). Therefore, it was important to investigate whether innovation and agility influenced the improvement of organizational learning.

Based on the theoretical framework and set hypotheses, we introduced a research model (Figure 1). The applied research model has two segments. The first segment refers to the impact of sharing information on an innovative supply chain through partner relationships with suppliers and customers. The second segment refers to the examination of the impact of an innovative supply chain on an agile supply chain and on organizational learning. The proposed model has enabled the research whether an innovative supply chain had the role of a mediator in influencing the sharing of information on the agility of the supply chain and organizational learning.

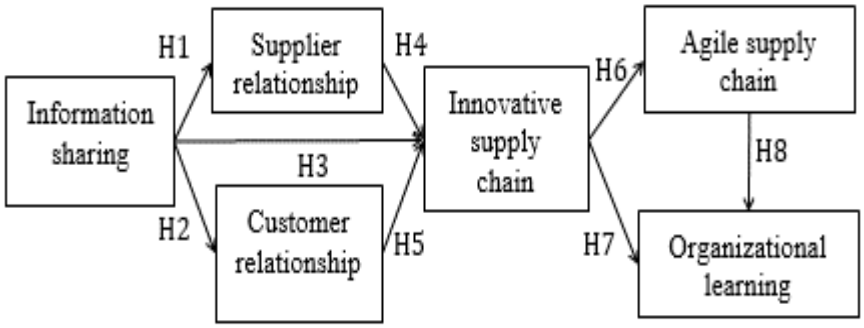

Figure 1. Research model

3. Methodology

In this section, we will present the basic set, sample survey and data collection procedures. We will show the results of non-response bias analysis of the collected data and will explain the operationalization of the research constructor.

Research for this study was carried out on the territory of Bosnia and Herzegovina. The research includes agro-food companies. According to the Statistical Business Register from June 30th of June 2016 there are 1745 such companies in Bosnia and Herzegovina. The basic sample included those companies that are primarily engaged in the production or processing of food and beverages were taken including registered farms and cooperatives. However, this sample is consisted mainly from companies located in urban areas. If it was not possible for a company to determine whether it is doing business or performing business activity, the first one below is taken into consideration. Data collection for this study was carried out from March to September 2016 and 149 companies took part in the survey. The basic characteristics of these companies are presented in Table 1.

Table 1. Basic data about companies involved in the study

	Companies' features	Frequency	%
Size	1. micro	24	16.1
	2. small	65	43.6
	3. middle	43	28.9
	4. big	17	11.4
Number of employees	1. 1-9	47	31.5
	2. 10-49	53	35.6
	3. 50-99	19	12.8
	4. 100-199	16	10.7
	5. 200+	14	9.4
Age	1. before 1970	15	10.1
	2. 1970-1989	16	10.7
	3. 1990-2010	96	64.4
	4. after 2010	22	14.8
Ownership	1. private	145	97.3
	2. state	0	0.0
	3. mixed	4	2.7
Possession of quality certificates	1. yes	99	66.4
	2. no	50	33.6
Primary activity	1. Food production	61	40.9
	2. Production of milk and beverages	25	16.8
	3. Agricultural production	44	29.5
	4. Other production	19	12.8

A survey questionnaire was used during the research. The questionnaire was created in the following way. First, relevant papers were collected that dealt with the subject of this study. Second, we identified the relevant papers which were used to create a questionnaire. Third, the questionnaire was forwarded to four experts who gave suggestions on the issue. Fourth, the survey questionnaire was corrected and sent to agro-food companies.

We analysed within non-response bias analysis those companies that did not want to take a part in the survey. The reasons for non-participation were the following: lack of time, lack of approval from the administration, nonperformin registered activities, etc. On the basis of these answers it can be established that there is no valid reason why they did not participate in the research. So the collected data from this research were confirmed. On the basis of these answers we understood that there is no valid reason why they did not participate in the study. Thus, the collected data from this study were confirmed.

We used the questionnaire consisting of two parts. The first part of the questionnaire examined the basic characteristics of agro-food companies: size, number of employees, company's age, ownership of the company, sales revenues in 2015 (BAM), possession of quality certificates and primary activity of the company. The second part of the questionnaire was measured research constructors: Information sharing, Supplier relationship, Customer relationship, Innovative supply

chain, Agile supply chain and Organizational learning. These constructors were tested using the Likert scale with five levels of agreement with the offered claims that ranged from "completely disagree" to "completely agree".

For the measurement of research constructors, we used customized claims as follows:

- Information sharing - Chavez et al. (2015);
- Supplier relationship - Chavez, et al. (2015);
- Customer relationship - Baihaqi and Sohal, (2013) and Chavez, et al. (2015);
- Innovative supply chain - Mohezar & Nor (2014) and Lee, et al. (2014);
- Agile supply chain - Yang (2014) and Gligor, et al. (2015);
- Organizational learning - Braunscheidela and Suresh (2009).

4. Results

We used different statistical methods to examine established hypotheses and the model. Cronbach's Alpha (CA) was used to test the reliability of the measurement scale, Average Variance Extracted (AVE) was used to test discriminatory validity, Square Rot of AVE and Confirmatory Factor Analysis (CFA) was used to test the validity of the construction. The connectivity of the research constructors was tested using Pearson's correlation coefficient while the model was tested by using Structural Equation Model (SEM). We conducted these statistical analyzes with the assistance of statistical programs Lisrel 8.8 and SPSS 20.

4.1. Scale validity and reliability

Before we tested the model, we performed CFA analysis and tested the reliability of the scale, the discriminatory validity and the relationship between the constructors. Based on the CFA analysis performed (Table 2), the findings showed that all claims have a good factor load (Chi-square = 197.97; GFI = 0.88; AGFI = 0.84, NFI = 0.93; NNFI = 0.97; CFI = 0.98; RMSR = 0.043; p = 0.043), thus the model has acceptable unidimensionality and convergent validity (Prajogo, et al. 2012).

Our descriptive analysis (Table 2) showed that the companies most agree with the claims related to the Customer relationship constructor, while the least agree with the claims related to the Supplier relationship constructor which is showed by the value of arithmetic mean. This analysis has shown that there is the largest dispersion in the responses related to the Supplier relationship constructor, while the smallest dispersion has shown in the responses related to the Customer relationship constructors which is indicated by the values of standard deviation (SD). During testing the internal consistency of the measurement scale, the findings showed that all values are greater than the critical value of .70 and range from .77 to .86 which proves the existence of consistent measurement scales.

Table 2. Scale validity and descriptives

Scale	Item description	Loading	Mean	SD	CA
Information sharing	The information needed to improve cooperation are exchanged	.69	3.67	.82	.86
	Partners share key knowledge about developing business processes and products	.80	3.44	.88	
	Information are exchanged with partners to assist planning of future activities	.71	3.64	.86	
	Communication with partners is timely, accurate, complete, adequate and reliable	.62	3.75	.90	
Number of employees	Suppliers are involved to solve problems in the company	.87	3.17	1.13	.83
	It is being improved product quality with assistance of suppliers	.64	3.67	.96	
	Suppliers are involved in development of products and business processes	.85	3.44	1.13	
	It is being cooperated with suppliers to improve business	.83	3.21	1.05	
Customer relationship	By interaction with customers, reliability and accountability are improved	.47	4.28	.71	.77
	Ccustomer's satisfaction is measured often	.65	3.94	.91	
	It is trying to determine future customer expectations	.70	4.15	.86	
Innovative supply chain	We use modern technology for product development	.80	3.75	.99	.84
	We are technologically competitive	.77	3.62	.98	
	We use modern warehouses and means of transport	.74	3.85	.94	
Agile supply chain	We quickly respond to changes in the market	.69	3.77	.84	.86
	We adapt very quickly to customer demand	.77	3.90	.83	
	We can quickly offer new products	.70	3.66	.96	
Organizational learning	We invest in the employees' promotion and learning	.69	4.21	.79	.83
	All employees have an embedded vision of the organization	.76	4.00	.89	
	All employees are committed in achieving common goals of the organization.	.68	3.95	.92	

The results of CR constructors' reliability (Table 3) showed that the values are above the critical .50 and range from .81 to .89 which proves that all constructors are reliable. The value of the AVE indicator ranges from .59 to .74 which is above the critical value of .50, which confirms that the constructors have a good discriminatory

value. The smallest value of square rot of AVE is .771 which is greater than the absolute value of the correlation analysis, which fulfills the requirement of discriminatory validity of the model construction. Correlation analysis showed that there is no significant connection in three cases. The least important is the relathionship between Information Sharing and Agile supply chain (r = .049) constructors, while the largest connection was found between Innovative supply chain and Agile supply chain (r = .534). Thus, it be concluded that the data collected are reliable and can be used to examine the research hypothesis and the research model.

Table 3. Composite reliability corelation and average variance extracted

Construct	CR	AVE	A	B	C	D	E	F
A. Information sharing	.87	.62	***.788***					
B. Supplier relationship	.81	.59	.292**	***.771***				
C. Customer relationship	.88	.65	.374**	.451**	***.805***			
D. Innovative supply chain	.89	.74	.107	.296**	.264**	***.857***		
E. Agile supply chain	.85	.66	.049	.310**	.243**	.534**	***.814***	
F. Organizational learning	.85	.66	.330**	.360**	.467**	.157	.160	***.810***

*Note: **Significance at 0.01 level, CR Composite reliability; AVE Average-variance-extracted; The square root of AVE is typed in bold italics along the diagonal*

4.1. Structural relationship

We used SEM analysis to examine the model. The findings showed that the model is reliable (Chi-square = 242.33; GFI = 0.86; AGFI = 0.82, NFI = 0.91; NNFI = 0.96; CFI = 0.96; RMSR = 0.058; p = 0.000). The results of model testing are presented in Table 4.

Table 4. Model results

Hypothesis	Path Estimates	t-value	p-value	Results
H1. Information sharing → Supplier relationship	.43	4.59	.000	Supported
H2. Information sharing → Customer relationship	.54	5.15	.000	Supported
H3. Information sharing → Innovative supply chain	.19	1.67	.097	Rejected
H4. Supplier relationship → Innovative supply chain	.18	1.86	.065	Rejected
H5. Customer relationship → Innovative supply chain	.34	2.85	.005	Supported
H6. Innovative supply chain → Agile supply chain	.41	4.42	.000	Supported
H7. Innovative supply chain → Organizational learning	.43	3.81	.000	Supported
H8. Agile supply chain → Organizational learning	-.03	-.28	.780	Rejected

The results obtained by examining the research hypotheses and the survey model showed that of eight total hypotheses, five hypotheses were accepted, while 3

hypotheses were discarded. The hypotheses H1 and H2 are accepted, confirming that there is a significant connection between information sharing with supplier relationship (path = .43; t-value = 4.59; p-value = .000) and customer relationship (path = .54; t-value = 5.15; p-value = .000). Hypothesis H3 has been rejected, which shows that there is no significant link between the sharing of information with an innovative supply chain (path = .19; t-value = 1.67; p-value = .097). There is no significant connection between the supplier relationship and the Innovative supply chain (path = .18; t-value = 1.86; p-value = .065), which eliminates H4, while there is a significant relationship between Customer relationship and Innovative supply chain (path =. 34; t-value = 2.85; p-value = .005) supporting hypothesis H5. Relation between Innovative supply chain with constructors Agile supply chain (path = .41; t-value = 4.42; p-value = .000) and Organizational learning (path = .43; t-value = 3.81; p-value = .000) show that there is a significant link between them, which confirms hypotheses H6 and H7. Hypothesis H8 was discarded, which explained that there is no significant link between Agile supply chain and Organizational learning (path = -.03; t-value = -.28; p-value = .780)

5. Discussion

This study focused on the role of sharing information in strengthening organizational learning. We did not study direct impact; rather we examined this issue through an innovative supply chain through the role of a mediator. The findings showed that sharing of information is not directly linked to innovative supply chain but rather through partner relations with the customer, wherein appeared another mediator. Sharing information is crucial for establishing partnerships with customers and suppliers (Lee & Ha, 2018). Partners will strengthen relationships if they develop trust among themselves through sharing of information. Sharing information is a tool for sharing the necessary information that needs to be quality in order to improve operations of all partners in the supply chain. Therefore, the impact of sharing information on partner relationships is explored. The findings showed that there is a significant correlation between sharing information and partner relationships with suppliers and customers. It is crucial for agro-food companies to have satisfied customer who will continue to buy their products. The company must find out what the customer wants and what his needs are. In order to reach information, the company must share information with key stakeholders. Customer information helps the company to get to know their desires and needs, and information provided by suppliers helps the company to innovate the supply chain in order to meet these wishes and needs of customers. In order to offer new and varied products that are tailored to their customers' wishes and needs, companies must develop innovative production and business processes (Joshi, et al, 2016). Thus, we put the innovative supply chain in the focus of this study. The findings showed that the sharing of information does not have a direct connection with an innovative supply chain. However, when considering an indirect relationship through partner relationships with suppliers and customers, it has been proven that customers play an important role as a mediator between sharing information and an innovative supply chain (path = .184; p = .012), while suppliers do not have the role of a mediator (path = .077; p = .084). These findings suggest us that partner relationships with customers are crucial

for establishing of innovative supply chain. After we examined the connection between sharing information and innovative supply chain, we also tasted the relationship between innovative supply chain and agile supply chain and organizational learning. The findings have shown that innovative supply chain is essential for supply chain to be agile-related and with organizational learning. Based on these findings it can be concluded that agro-food companies in Bosnia and Herzegovina need an innovative supply chain to develop an agile supply chain. The results have shown that agro-food companies in Bosnia and Herzegovina need to develop an innovative supply chain to improve organizational learning in these companies. However, it is not necessary to have an agile supply chain to improve organizational learning. The obtained results of this study will assist agro-food companies in Bosnia and Herzegovina to improve organizational learning that is key issue for development of each company, because knowledge is the most important resource of the company. In order to enhance organizational learning of agro-food companies, they must first share information and develop partner relationships with customers enabling supply chain to be innovative. The study showed that an innovative supply chain is essential to improving organizational learning.

6. Conclusion

The study has shown that an innovative supply chain is necessary for development of organizational learning in the company. Furthermore, this study has also shown that sharing information through partner relationships with customers is crucial in improving an innovative supply chain. The obtained results of this study will assist agro-food companies to improve their business and provide theoretical basis for understanding the relationships established in this research. In future studies it is possible to improve the model by including more constructors that are not involved and which could influence the improvement of organizational learning. Moreover, the model enables research in other branches of industry in order to find out whether the same relations in these branches are matched. For future research, it is imperative to investigate which constructors are better linked to organizational learning. After that it is preferably to include those constructors in the model to give guidance on improving organizational learning. The study provided practical and theoretical basis for improving the knowledge on information sharing and an innovative supply chain for improvement of organizational learning. The used model will help agro-food companies in Bosnia and Herzegovina to organize their business in order to be more competitive on the market.

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