Mustafa Kemal Üniversitesi Sosyal Bilimler Enstitüsü Dergisi
Mustafa Kemal University Journal of Social Sciences Institute
Yıl/Year: 2018♦ Cilt/Volume: 15 ♦ Sayı/Issue: 41 s. 147-174

THE EFFECTS OF POWER RELATIONSHIPS AND CONFLICT ON PRICE FLUCTUATIONS IN FRESH PRODUCE SUPPLY CHAINS: A QUALITATIVE STUDY[1]

Seçil GÜLMEZ
İskenderun Technical University
Orcid ID: 0000-0002-4342-4386
Gül DENKTAŞ ŞAKAR
Dokuz Eylul University
Orcid ID: 0000-0002-1072-6150
Makale Geliş Tarihi: 08.09.2017 Makale Kabul Tarihi: 31.03.2018

Abstract

Fresh produce supply chains differ from many other supply chains regarding the perishability of a product, short shelf life, seasonability, long production process, physical specialities as well as a large number of intermediaries involved. The specifications of a fresh produce supply chain are also interrelated with the factors that have a direct impact on price levels. Involvement of many actors within these supply chains as well as their changing needs and expectations may result in the emergence of possible conflicts and issues related to power. Although there is an increasing interest in fresh produce supply chains in the recent literature, studies that focus on the effects of intermediaries on fresh produce price fluctuations by considering perspectives of different actors are limited. Hence, the primary aim of the study is to analyse the impact of intermediaries in fresh produce supply chains on fresh produce price fluctuations and to identify the sources of these effects. The secondary aim of the study is to present the current situation of the fresh produce supply chain in Turkey. Face to face interviews were conducted with various members of fresh produce supply chains in Izmir, Turkey and qualitative analysis software (Nvivo) was used for content analysis, and interviews were interpreted. Findings highlight the effects of power and conflict factors between the supply chain parties on fresh produce price fluctuations. Although there are various factors, which cause price fluctuations as mentioned in the literature, power and conflict factors cannot be neglected. Interview results show that the weakest members of the fresh produce supply chain are the producers, who have no right to determine the price levels due to their unorganised structure. Merchants, wholesale market commissioners (WMC), industrial buyers and retailers gain dominance in fresh produce supply chain for the reasons of paying in advance, providing vast amount of quantity orders and incentives, concerns of producers regarding no purchase decisions, cash money requirements of producers, and claim of selling crops faster due to product characteristics. A conceptual framework is presented in order to reveal the main links between the actors and the related dimensions in fresh produce supply chains.

Keywords: *Conflict, Distribution Channel, Fresh Produce Supply Chain, Interview, Power.*

[1] This study has been submitted and presented at XIV. International Logistics and Supply Chain Congress, 1-2 December 2016, İzmir, Turkey. The literature review was extended to gain more insights from literature and to discuss the issue in utter detail.

TAZE MEYVE SEBZE TEDARİK ZİNCİRLERİNDE GÜÇ İLİŞKİLERİ VE ÇATIŞMANIN FİYAT DALGALANMALARINA ETKİSİ: KALİTATİF BİR ÇALIŞMA

Öz

Taze meyve sebze tedarik zinciri, ürünlerin dayanıksız olması, mevsimsellik, kısa raf ömrü, uzun üretim süreçlerine ihtiyaç duyulması, farklı ürün özelliklerine sahip olmalarının yanı sıra içerisinde çok sayıda aracı bulundurması sebebiyle diğer birçok tedarik zincirlerinden farklılık göstermektedir. Taze meyve sebze tedarik zincirinin özellikleri, fiyat seviyeleri ile doğrudan etkisi olan unsurlarla da bağlantılıdır. Birçok aktörün, bu tedarik zincirleri içerisinde bulunmalarının yanı sıra bu aktörlerin değişen ihtiyaçları ve beklentileri, olası kanal içi çatışmalar ve güç ile ilgili sorunların çıkmasına sebep olabilir. İlgili yazında, son dönemde, taze meyve sebze tedarik zincirine olan ilginin artmasına rağmen, farklı aktörlerin bakış açılarını dikkate alarak fiyat dalgalanmalarını inceleyen çalışmalar sınırlıdır. Dolayısı ile bu çalışmanın ilk amacı, taze meyve sebze tedarik zincirindeki aracıların, ürün fiyatlarındaki dalgalanmalara olan etkisinin incelenmesi ve bu etkilerin kaynaknağının tanımlanmasıdır. Araştırmanın ikinci amacı ise, Türkiye'de taze meyve sebze tedarik zincirinin mevcut durumunu ortaya koymaktır. Yüzyüze görüşmeler, İzmir-Türkiye'de taze meyve sebze tedarik zinciri içerisinde faaliyet gösteren çeşitli aktörlerle gerçekleştirilmiştir. İçerik analizi için nitel analiz yazılımı (Nvivo) kullanılmış ve görüşmeler yorumlanmıştır. Bulgular, taze meyve sebze tedarik zinciri üyeleri arasındaki güç ilişkilerini ve çatışma unsurlarının ürün fiyatlarındaki dalgalanmalarıa olan etkisini ortaya koymaktadır. İlgili yazında da belirtildiği gibi taze meyve sebze fiyatlarının dalgalanmasına sebep olan çeşitli unsurlar olmasına rağmen, güç ve çatışma unsurlarının etkisi yadsınamamaktadır. Görüşme bulgularına göre, taze meyve sebze tedarik zinciri içerisindeki en zayıf üye, organize olmamalarından da kaynaklı olarak ve fiyat seviyelerinin belirlenmesinde de herhangi bir etkisi bulunmayan, üreticilerdir. Tüccarların, hal komisyoncularının, endüstriyel alıcıların ve perakendecilerin üreticilere avans vermeleri, yüklü miktarlarda ürün siparişi vermeleri, üreticileri teşvik etmeleri, ayrıca; üreticilerin ürünleri satabilmesi ile ilgili endişeleri, üreticilerin nakit ihtiyaçları ve ürün niteliğinden kaynaklı olarak üreticilerin ürünlerini hızlı bir şekilde satmak istemesi gibi sebepler ile pazarda hakimiyet kurmaktadırlar. Çalışma kapsamında, taze meyve sebze tedarik zinciri içerisinde yer alan aktörler arasındaki ilişkilerin ve ilgili boyutların ortaya çıkarılması amacıyla kavramsal bir çerçeve sunulmaktadır.

Anahtar Kelimeler: *Çatışma, Dağıtım Kanalı, Taze Sebze Meyve Tedarik Zinciri, Mülakat, Güç*

Introduction

Fresh produce and fresh produce supply chains have own specifications, which directly caused to problems in price fluctuations. Even though farmers do not get remunerative prices, high prices of fresh produce paid by customers lead to price fluctuations in many countries (Zhang and Deng, 2011:19, Negi and Anand, 2014: 163; Aysoy et al. 2015:1; Singh and Mishra, 2013:30). There are many reasons behind these problems, which have been discussed in the literature. Apart from the specifications of fresh produces supply chain structure contributes to price fluctuations as well. According to Aysoy et al. 2015:2-3) fresh produce supply chains involve a large number of intermediaries who distribute products from the farmer to retailer. Therefore, intermediaries play an important role in price fluctuations and

lead to inefficiency in the supply chain (Tolani and Hussain, 2013:266; Shukla and Jharkharia, 2013:117; Aramyan and Kuiper, 2009:7). While intermediaries have a significant role in fresh produce supply chain, existing studies did not investigate the effects of intermediaries on price fluctuations and the sources of these effects from the perspective of all the parties. Extant researches related to fresh produce supply chain and distribution channel theory gave attention to effects of power and conflict issues on relationships of fresh produce supply chain stakeholders. Therefore, the first aim of the study is to examine the effect of intermediaries in fresh produce supply chain on fresh produce price fluctuations and sources of these effects. The second aim of the study is to present the current situation of the fresh produce supply chain structure in Turkey through the interviews with the parties of fresh produce supply chain. The findings of the study may offer benefit for the fresh produce supply chain actors.

The study is organised as follows: Theoretical framework consists of two different sections that explain (i) fresh produce supply chain characteristics and price mechanism, and (ii) distribution channel theory: power and conflict dimensions. The methodology section provides information about the research process and data interpretation. Lastly, conclusions and recommendations for future research are presented.

Fresh produce supply chain characteristics and price mechanisms

Particular specifications of fresh produce affect supply chain management and performance of fresh produces (Kaipa, 2013). Many researchers have studied the characteristics of fresh produce which distinguish them from other supply chains. These characteristics can be listed as limited shelf life, perishability, delicateness and seasonality etc. (Kaipa et al. 2011; Aramyan et al., 2007; Xhoxhi et al. 2014; Rais and Sheoran, 2015; Liu et al. 2008; Rolfe et al. 2006; Aramyan and Kuiper, 2009; Nakandala et al. 2016). There are several reasons, which are associated with fresh produce price fluctuations. The report on "Global Food Crisis" point to high-energy prices, which increase the costs of fresh food production as it increases the cost of seed production, irrigation, transportation and fertilisers. Additionally, the report stated that supply and demand imbalances, low food stocks, climate change, droughts, population, income growth, changing dietary patterns in urban centers, urbanization, speculation in food market, food security, biofuel issues, constraints on agricultural production in developing countries, investments, trade rules, and market conditions (fair competition) also give rise to price increases (UNCTAD, 2008). Many studies have addressed the main reasons behind price changes in fresh produce supply chain. These reasons are illustrated in Table 1:

Table 1: *Literature on the leading causes of price changes in fresh produce supply chain.*

Main Reasons	References
Transaction cost	Zhang and Deng, 2011: 19-22; Baourakis and Kourgiantakis, 2002:589; Tolani and Hussain; 2013:968; Singh and Mishra, 2013:32
Transportation process and cost	Shukla and Jharkharia, 2013:119; Wilmsmeier and Sanchez, 2009:56; Tolani and Hussain, 2013:969; Aramyan and Kuiper, 2009:6
Waste	Negi and Anand, 2014: 162; Tolani and Hussain, 2013:966; Singh and Mishra, 2013:32; Kaipia et al. 2011:267; Shukla and Jharkharia, 2013:142
A large number of intermediaries	Tolani and Hussain, 2013:968; Rais and Sharon, 2015:6; Shukla and Jharkharia, 2013:140; Aysoy et al. 2015:2-3; Aramyan and Kuiper, 2009:7
Supply and demand misalignment	Rais and Sheoran, 2015:6; Taylor and Fearne, 2006:382; Shukla and Jharkharia, 2013:140; Singh and Mishra, 2013:32; Zhang and Deng, 2011:19-20
Improper production policies	Taylor and Fearne, 2006:379; Shukla and Jharkharia, 2013:117
Geographical conditions and transport routes	Sing-Peterson et al. 2013:43-47
Weather conditions	Singh-Peterson et al. 2013:42; Zhang and Deng, 2011:24
Information systems and data processing	Shukla and Jharkharia, 2013:140; Taylor and Fearne, 2006:381; Kaipia et al.,2011:273; Liu et al. 2008:17
Market structures and marketing	McLaughlin, 2004; Aysoy et al. 2015:8; Aramyan and Kuiper, 2009:5; Ward, 1982:209; Baourakis and Kourgiantakis, 2002:589
E-commerce	Baourakis and Kourgiantakis, 2002:580
Pricing techniques (competition, promotion etc.)	McLaughlin, 2004
Pricing policy (discounts or premium prices)	Sezen, 2004:223

Source: Compiled by the authors

It is significant to eliminate these factors which lead to price increases through an efficient supply chain management because inefficiency in fresh produce supply chain induces wastage and losses, which eventually cause farmers to face

lower income and customers to get low-quality products (Negi and Anand, 2014:162-163). According to Rais and Sheoran (2015:6), factors which enhance supply chain efficiency are the availability of cold storage, government policies, connectivity, sorting and grading technology, handling, and packaging, skilled labour, and linkage in the market channel. Moreover, demand forecasting, vertical coordination of farmers through cooperatives, customised logistics activities, information systems, and PPP (public-private partnership) solutions increase supply chain efficiency, and correspondingly, price levels decrease. Furthermore, smart pricing, which is compatible with operations based on lead time, capacity and inventory decisions (Liu et al., 2008:7; Rolfe et al., 2006:200; Fleischmann et al., 2003:9), emphasizes dynamic pricing due to setting exact fresh food prices which provides optimal ordering, decreases unsold wastage or low-priced products, and maximizes return on products. Sezen (2004:223-229) introduced a methodology to assist managers in discount price decisions. Nakandala et al. (2015:580) point to cost and quality optimisation to minimise costs. Besides, Handayati et al. (2015:4-5) argue that the coordination of supply chain members may decrease wastages and thus increase farmers' income. With regard to coordination and cooperation, Belaya and Hanf (2012:215) revealed the role of power in managing supply chain networks, especially with effects on coordination and cooperation to develop a strategy which provides an effective mix power mechanism to supply chain managers. In the light of this, the following section focuses on the power and conflict dimensions within a distribution channel by considering the supply chain issues.

Distribution channel theory: power and conflict dimensions

In the distribution channel literature, power is defined as follows: "A has power over B to the extent that he can get B to do something that B would not otherwise do" (Dahl, 1957: 202-203). In addition to this definition, Gaski (1984:11) stated that one channel member has control over another channel member's alternatives, environment, and information. The control could be comprehensive and effective enough to reach the considerable source of power. Sources of power are represented under six categories as; informational, reward, coercion, legitimate, expertise and referent. Many researchers have explained these terms in detail (Raven, 2008:1). Although French and Raven (1959:267) did not have "Informational Power" in their categorisation, Raven (2008:2) included the informational power to general categorisation. Reward power means that the influencer can reduce or diminish unfavourable consequences and to mediate favourable results over the influencee (Swasy, 1979). Giving economic rewards for increased sales and profits are simple examples of reward in the channel (Wilkinson, 1996:33). Legitimate power source, on the other hand, means that the influencer has legitimate right to prescribe the influencee, and then the influencee has to yield fewer conflicts with the influencer (Lusch, 1976:383). "Obliged", "obligated", "ought to", or "required to" terms may be seen as the signal of usage of legitimate power (Raven, 2008:3). Referent power stems from the influencee's opinions. The influencee considers the

influencer as a model whom the influencee wants to achieve (Raven, 2008:2). Hence, the influencee does not want to be in conflict with the influencer (French and Raven, 1959:263). Coercive power means if the influencee does not comply with the influencer, the influencer can bring changes by threatening the influencee (Raven, 2008:3-4). This source of power is based on the influencee's beliefs that if any fault occurs in cooperation with the influencer, the influencer can punish the influencee (Lusch, 1976:383). Informational power implies that the influencer explains why and how work should be done effectively and differently with convincing reasons. Then, the influencee understands and accepts the changing reasons (Raven, 2008:2). As far as expert power is concerned, the inferior believes that the superior has specific knowledge and expertise (Gaski, 1986:22). The relationship between two parties is based on trust (French and Raven, 1959:267). The expert power source is different from informational power in that the influencee believes that the influencer knows what behaviours should be implemented in any circumstance without understanding the reason (Raven, 2008:3).

Interdependence exists among channel members, which means that all channel members can be significantly affected by the practices of one channel member (Zikmund and Catalanello, 1976:801). Hence, distribution channel theory explains power and dependence relations. Social relations necessitate ties of mutual dependence between parties. These ties mean that each party has a position, which grants or denies, restraints or facilitates. Besides, dependence structure is profoundly affected by the behavioural response of channel members (Keith et al., 1990:30). The power as a function of dependence stems from the dependence of one another member (El-Ansary and Stern, 1972:47).

Conflict arises from channel members' different goals, ideas, and perceptions of reality. Moreover, conflict is mainly stimulated by the use of power. The superiority of conflicts or disagreements between firms has an impact on benefits stemming from influencing the other (Wilkinson, 1996:35; Boeck and Wamba, 2008:454; Weitz and Wang, 2004:873; Darling and Gabrielson, 2004:384). Potential reasons for conflicts under four issues are classified as role deviance, perceptual error, goal incompatibility and inefficient communication system. In addition to these four issues, coercive and noncoercive sources of power also have a significant effect on conflict in the channel (Lusch, 1976:383).

In distribution channel, cooperation and coordination activities are needed regarding the interdependence of organization to achieve predictability and trustability. Therefore, inevitably, conflict may arise between members when there are different aims, perceptions, and ideas. Conflicts need to be controlled to prevent disruptions in the channel (Wilkinson, 1996:39). To operate in an integrated way in the channel, co-operation and coordination between channel members should be achieved (Wilkinson, 1996:32).

Various studies about power and conflict have been found in the distribution channel literature. El-Ansary and Stern (1972:87) submitted a model for power

measurement and empirically measured power relationships in the distribution channel. Hunt and Nevin (1974:186) empirically evaluated the relationship between sources of power and power in the franchisor-franchisee channel. Lusch (1976:382) stated that coercive power usage increases the level of conflict between auto manufacturers and dealers. In case of dyadic channel relationships, Frazier (1983:158) argued that one firms' performance determine the other firms' dependence and added that dependence also determines antecedent firm's power level over following firms. Gaski (1986:9) studied causal relationship between sources of power and concluded as coercive power and reward power effect referent, expert and legitimate power. Heide and John (1988:20) found that existence of specific assets inclines dependence and dependence balancing increases performance. Due to dependence, positive consequences of power take place in the channel presumably. Keith et al. (1990:30) studied the impact of dependence and influence strategies over attitudes. Brown et al. (1995:363) analyzed effects of supplier's power usage upon retailer and supplier performance and commitment of retailer to the channel relationship. Ogbonna and Wilkinson (1998:77) illustrated changing concepts of commodity chain from supplier-driven to buyer-driven and shifting power balances among grocery retailers and manufacturers. Rokkan and Haugland (2002:211) discussed the impacts of power and effectiveness upon a relational exchange between retail chain and its vendors. Webb (2002:95) described strategies for conflict management in e-channel. Webb and Hogan (2002:338) found the effect of the hybrid channel over channel performance and satisfaction. Iyer and Villas-Boas (2003:80) found out that increase in retailer power develops coordination of channel. Powerful retailers may create benefits for all channel members. Darling and Gabrielson (2004:391) submitted a model for how the conflict is managed in the export distribution channel and described main steps to be followed. Benton and Maloni (2005:1) specified that power has the positive effect on satisfaction and performance in the relationship of buyer-supplier. Tikoo (2005:329) analyzed franchisors and franchisees relationship and conflict perceptions of franchisees. Author found out that franchisors use various persuasive communications in order to influence franchisees. Lindblom and Olkkonen (2006:482) examined category management within retailer-manufacturer relationship considering power concepts. Also, Xu and Beamon (2006:4) analyzed supply chain cooperation and coordination mechanisms in terms of managing organizational interdependencies. Level of interdependence is based on asymmetric-symmetric and cooperative-competitive. Power determines asymmetric and symmetric independence level of firms within the supply chain. Nagy (2006:315-316) suggested that exchanging of information between commercial partners depends on the power structure of supply network. Crook and Combs (2007:546) concentrated on basis and results of bargaining power in the supply chain. Also, they examined that how stronger and weaker members obtain benefit from supply chain management. Zhou et al (2007:309) examined perceptual differences of dependence asymmetry in the channel. Falk et al. (2007:143) specified that synchronization of

service channels should be achieved in order to minimize conflicts and increase the whole performance of channel system. Hua and Li (2008:697) developed game models considering cooperative and non-cooperative scenarios. Authors developed a point of view about how sensitiveness and demand uncertainty affect retailer dominance over manufacturer and supply chain cooperation. Wong and Johansen (2008:387) investigated manufacturer-retailer coordination process and argued that using coercive power does not always mean success in coordination. Boeck and Wamba (2008:433) highlighted that buyer-supplier relationships alter infrastructure of RFID and results of RFID implementations. Within the context of the study, eight key dimensions, which dominate buyer-supplier relationship, are determined. These dimensions are communication/information sharing, cooperation, trust, commitment, relationship value, power imbalance and interdependence, adaptation and conflict. Zhao et al. (2008:369) investigated impacts of power types over the commitment of manufacturers. Yeung et al. (2009:66) examined coercive power, trust, their interactive relations and effects on internal and supplier integration. The study found out that both trust and coercive power promote internal and supplier integration. Osmonbekov (2009:778) stated that increasing in conflict generates potential risks for e-business and found out that how conflict influences e-business failures. Fernie et al. (2010:894) discussed about how retailers in the UK provided supply chain control. Boulay (2010) analyzed governance of franchise-franchisor systems considering information systems, contract, and norms. Contracts and information systems are control mechanisms of the franchise system. Thus franchisor has control power over franchisees through the control mechanism. Chow et al. (2011:306) studied power balance between manufacturers and retailers in Chinese air conditioner market. Bobot (2011:25) found out that functional conflict has a positive effect on relationship quality of retailer-supplier. Besides dysfunctional conflict does not have a significant effect on overall relationship quality in retailer-supplier relationships. Mahmoud et al. (2011:35) contributed to main issues of channel structure and conflict management in developing economies. He et al. (2013:605) investigated that how power effected knowledge acquisition and supply chain performance. The study examined the relationship between knowledge acquisition, supply chain performance and power. Sheu (2015:97) examined interrelationships between channel power shifts, government intervention, green channel performance and relationship quality developments by providing an extensive framework. Hingley et al. (2015:78) investigated role of buyer-supplier relations. Collaborative roles of intermediaries decrease one-way power influences in supplier-buyer relationship.

Considering the distribution channel literature, studies related to fresh produce supply chain, are limited. While Aramyan et al. (2007:312) focused on the conflict between supply chain members, Mikkola (2008:189) examined the dyadic relationship in food supply chains by the market, network social relations and hierarchy or power. Similarly, Belaya and Hanf (2012:219) examined role and effects of power on coordination and cooperation in fresh produce supply chain. Taylor

(2005:744) discussed the power of UK supermarkets, which forces to processors and farmers to reduce prices. Hingley (2005:551) investigated power in business-to-business relationships in fresh produce supply. Xhoxhi et al. (2014:815) analysed the power of intermediaries over farmers and nature of their trading relationships from the viewpoint of farmers. Dapiran and Hogarth-Scott (2003:256) analyzed the role of power, dependence and cooperation relations between food retailers and suppliers and their impacts on category management. Howe (1998:212) discussed the changing trends of market power between UK grocery retailer and manufacturers. Mena et al. (2013:58) stated that dynamics of the multi-tier supply chain have influence over interdependence, structure and power balance in multi-tier supply chain in UK food industry. Bonet and Pache (2005:583) implied that controlling induce asymmetric power struggle and insert parties independence situation in logistics channel. However, these studies did not discuss the price fluctuations in the context of the distribution channel approach. Price fluctuations have not been examined from the distribution channel perspective within a holistic view, which covers all the fresh produce supply chain parties.

Methodology

This study is an exploratory research which analyses the impacts of fresh produce supply chain actors on price fluctuation and sources of these effects. This exploratory research also presents the current situation of fresh produce supply chain in Turkey. Studies, which investigate the effects of the fresh produce supply chain actors on price fluctuations, are limited in Turkey. Therefore, an exploratory study is needed to evaluate the perspectives of all parties.

Sampling is a crucial stage in the research process regarding the quality of implications (Onwuegbuzie and Collins, 2007:282). Snowball sampling method, which enables the researcher to identify a first subject which refers the researcher to another subject, was used in the study (Atkinson and Flint, 2004). Snowball sampling was employed to reach the related experts in the field. The interview questions were directed to an experienced executive who worked in the supply chain department of reputable retail companies for many years. The experienced executive provided the names of possible interviewees for the study. Following this, authors attended the İzmir Tarım Grubu meeting. Participators of the meeting were directors of cooperatives in İzmir, members of Union of Chambers of Turkish Engineers and Architects (Chamber of Agriculture Engineering and Chamber of Food Engineering), agriculture journalists, agriculture and cooperative consultants, members of regional chambers of agriculture, representatives of İzmir Metropolitan Municipality, Chamber of Veterinary Medical, professors (Dokuz Eylul University and Ege University) and agriculture associations. Three interviews were conducted during this meeting. In general, the interview is performed and held with minimum two parties (Baker, 2004:163). Within the context of the study, 24 experts were contacted to get an appointment for the interview. However, interviews were conducted with 16 experts due to the busy schedule of the experts or unwillingness

to share information. Although the sample size was limited to 16 experts, the subject was discussed with the all parties in fresh produce supply chain. Additionally, replication of the answers indicated that the sample reached the saturation point (Saunders et al. 2017:5). Authors interviewed with the İzmir Provincial Directorate of Commerce, members of Arbitration Committee for Consumer, executive of İzmir Chamber of Stallholders, an agriculture journalist, executives of regional chambers of agriculture, sectoral consultants, a member of Chamber of Food Engineering, members of Chamber of Agriculture Engineers, Karşıyaka Municipality members, an academician at Ege University department of agricultural engineering, İzmir Metropolitan Municipality members and İzmir Central Wholesale Market Hall, executive of İzmir Association of Vegetable and Fruit Commissioner, commissioners, stallholders, owner of a factory that produces pickles and tomato paste. Due to the confidentiality issues, the details regarding of the interviewees was not provided in the study.

Within the context of the study, interview method was used to collect data. Interview is an effective and powerful way of qualitative data collection (views and opinions) based on verbal communication and narrative, which enables flexibility to researcher (Crouch and Kenzie, 2006:485; Ritchie and Ormston, 2014:138; Briggs, 1986:1; Bryman, 2012:468; Czarniawska, 2004:30). Interview question form for the semi-structured interview was prepared by the distribution channel theory and fresh produce supply chain studies (See Appendix 1). Semi-structured interviews are the most frequently employed interview technique in qualitative researches and involve open-ended questions (Dicicco-Bloom and Crabtree, 2006: 315: Cohen and Crabtree, 2006:1). Although there are many types of interview (Gill et al. 2008:291), the semi-structured interview was chosen in this study for data collection purposes since it provides extensive flexibility and fluidity and enables proper extent to research field and topics to the researcher. Also, it provides the opportunity to ask additional questions which are not scheduled before the interview (Bryman, 2012:468; Gill et al., 2008:291; Fowler, 2004; Baharein and Noor, 2008:1604). Once an interview guide was designed, the researcher must consider gaining as much information as possible about the study and correspond them with the aims of study (Gill et al. 2008:292). The interview guide for this study, which explores the effects of conflict over fresh produce prices, was prepared considering the factors that affect fresh produce prices. Besides, questions, which aim to find out the effects of power dimensions on price changes, were borrowed from the distribution channel literature.

Content analysis was used to interpret the data. In this analysis, obtained data is interpreted and summarized under main headings (Altunışık et al. 2012:324). Also, observational methods can be used in qualitative research by using notes, which comprise the interpretations of researchers (Elliott and Timulak, 2005:150). In the present study, all interviews were conducted face to face. Each interview lasted between 45-70 minutes and was audiotaped by receiving permission from the experts. During the interviews, the authors also noted important points. The

audiotapes and the notes were transcribed verbatim. 26 pages of data were obtained from the interviews in total. Information was imported to NVivo to apply content analysis to interview data. NVivo is a software used in qualitative research and provides analysis of data, management and synthesis of views and research design while enabling coding, reviewing, text editing, retrieving (Zamawe, 2015:15; Bandara, 2006:8; Azeem and Salfi, 2012:264). 18 words which evocate sources of power and conflict were determined in the light of the distribution channel literature. These words were entered into NVivo software and searched in every interview folder.

Content analysis

Content analysis is frequently used in qualitative research. Qualitative data obtained by interview need a different analysis method because they are expressed in words. At this point content analysis allows the researchers to analyze the qualitative data (Bengtsson, 2016: 13). Content analysis can also be employed by the software tool to manage and examine the data (Bazeley and Jackson, 2013: 2). In this study, NVivo was used to analyse word frequencies associated with power sources. Word frequency analysis was used to determine the power relations and conflict between the supply chain parties and to determine the sources of these factors. Word groups were determined by literature review, and then they were translated by authors and matched with interviews through NVivo. Primarily every interview folder was imported into the software. Text search was applied to every interview folder. NVivo analysis revealed the frequencies of the determined words. Since NVivo performs analysis on a word basis, documents were also cross-checked by the authors manually. Grey cells represent NVivo data, and white cells represent manual content analysis. Findings of text search are presented in Table 2.

Table 2: *Analysis of Power Association Words by NVivo Software and Manual Content Analysis*

Word		Number of Expert	Word Times	Number of Expert	Mention Times
Reward	Encourage	3	7	-	-
	Promotion	1	1	-	-
	Reward	-	-	-	-
Legitimate	Liable	-	-	-	-
	Obligate	1	4	-	-
	Contract	7	18	1	1
	Agreement	5	5	-	-
Referent	Model	-	-	-	-
Coercive	Threaten	1	1		
	Punish	-	-	1	1
	Force	6	8	4	8
Information	Convince	3	4		
	Knowledge	2	2	-	-
Expert	Information	1	1		
	Experience	5	7	1	1
	Trust	2	2	3	4
Conflict		9	19	-	-
Power		11	32	-	-

Content analysis of interviews reveals the perceptions of related parties in the fresh produce supply chain. Not surprisingly, the experts mostly used the words “power” and “conflict”. However, it has not been expected that the word "liable" would not be used by any of the experts. The results of the content analysis helped the authors have an idea about power and conflict dimensions in fresh produce supply chain and determine the sources of power in the channel.

Findings

Interview questions aimed to (i) determine the problems encountered by fresh produce supply chain members in Turkey, (ii) analyze fresh produce supply chain members’ relations based on power and conflict factors, and (iii) analyze the effects of these factors over price fluctuations and the problems occurring in fresh produce supply chain. Within the context of the study, interview questions attempted to address to each party of fresh produce supply chain. These members are producers (farmers), merchants (as intermediaries), wholesale market commissioners (WMC) (also intermediaries but different from the merchants regarding the property right of crops), the wholesale market office (WMO), retailers,

agricultural cooperatives (unions), industrial buyers and stallholders. Merchants and WMCs are different due to the property right of crops in the fresh produce market in Turkey. Merchants perform their commercial activities by taking possession of crops. However, WMCs do not take possession of crops but perform as receiving commission over each sale. Retailers represent big retailer store chains. Primary duties of the chamber of agriculture are register the producers and preparing documents related to producing activities (TZOB, 2010). Cooperatives are legal entities in which producers are organised. Industrial purchasers represent canned fruits and vegetable industry. Stallholders purchase fresh produces from the wholesale market, and then sell retail to consumers.

The price fluctuations and their possible reasons were analyzed from the perspectives of seven different fresh produce supply chain parties by their experiences and perceptions. Retailers were excluded as they did not attend the meeting.

Producers

Producers are in contact with merchants, WMCs, the WMO, retailers, cooperatives, chambers of agriculture and industrial purchasers. In addition to these parties, producers can directly sell their products to final consumers in the marketplace. While evaluating the producers in the fresh produce supply chain, they are seen as the weakest members in general. Considering the relationship between producers-WMCs-retailers-industrial purchasers, it can be said that producers do not have any power to determine crop prices. They only accept the prices offered by the intermediaries. Even if the crops are not in the harvest season, providing cash money to producers by the intermediaries is the main reason behind being weakest in the fresh produce supply chain.

[…] Producers have two options to get cash money. The first one is banks, but producers do not prefer to get a loan from banks due to various enforcements (interest rates, payment guarantee, and payment period). Therefore, they turn to merchants who they are already in contact. Producers demand cash money from merchants, but merchants determine the time of payment. How does the producer pay the money back? Of course, merchants want to buy fresh produce at lower prices than the market level. Although producers meet the cash money needs in this way, they cannot solve their real problems. Crops are not sold at its real value and they will face with finance problem again…

Besides, the characteristics of some fresh crops are not suitable for being stored. Even if crops can be stored, most of the producers do not have these infrastructures. In the relationship of producers-merchants, merchants provide cash money or assure payments based on the strength of their long-term commercial activities. Also, producers-WMCs build their relationship based on trust (French and Raven, 1959). However, WMCs threat producers in some cases. In case of misreporting of the actual details of crops, WMO is the authorized to impose fine to WMCs. WMCs force producers to pay the fine. WMCs withhold the payments to the

producer, WMO has the power of sanction over the commissioner. Relationships of producers-retailers and producers-industrial buyers are based on contract. When the predetermined price levels are lower than the market price levels, retailers and industrial buyers may desist from the purchasing decision, and when the predetermined prices are higher than the market price level, producers may desist from the selling decision. Furthermore, payment conditions and contract terms can be changed based on the requests due to the very high purchasing power of these parties. In the producers-retailers relationship, retailers return unsold products and they even control quality in the process of purchasing. In addition, retailers cut back on total payments instead of physically returning the products.

[…]Although retailers control the quality and calibration of our crops, they return waste crops if crops are not sold. Besides, crops are not returned physically. Retailers report us the amount of the unsold crops and cut back on total payments. Refunding in return for waste crops? It is not even a matter of discussion!

Relationships between producers-cooperatives stem from encouragement (provides cheaper fertilizers, seeds, agricultural pesticides) and the bargaining power of cooperatives on behalf of producers, which lead to trust. The conflict between these parties stems from different aims of the parties (Wilkinson, 1996). While producers desire to sell their crops at an expensive price, merchants, retailers, and industrial buyers want to buy the crops at a cheap price.

[…]Conflict arises from the different aims of the parties. Producers want to sell their crops at higher prices and buyers (retailers, merchants etc.) want to purchase crops at lower prices.

If producers keep company with each other, they can play a major role when determining the price level. Coupled with different aims of parties, buyers expect from producers to fulfill homogeneity of product quality, but producers do not meet the needs of buyers. Therefore, some of the conflict situations affect price changes.

Merchants, Wholesale Market Commissioners, and Wholesale Market Office

Power perceptions of parties about merchants and WMCs stem from the wide distribution network, providing cash money, experience, financing producers and dominating in the market. Besides the general views of parties about merchants, during the period of low prices of products, merchants purchase large tonnage of products. However, in high prices periods, they sell the products which have been stored before and they can offer speculative prices for unharvested products. Also, financing of producers by intermediaries causes the offering lower prices for crops.

[…] When crops are cheap, merchants buy a huge amount of crops and keep waiting for the market gap. When there are fewer products in the market, they sell their crops at higher prices.

Due to having wide distribution networks, merchants are able to control the quantity of the products in their market area. The perception of industrial buyers,

merchants and WMCs is that supply and demand equilibrium determines market prices (Zhang and Deng, 2011; Rais and Sheoran, 2015; Taylor and Fearne, 2006; Shukla and Jharkharia, 2013; Singh and Mishra, 2013). Besides the perception of the other parties of the fresh produce supply chain is totally different. According to their opinion, possession of the crops by merchants regulate the market. Possession of crops is the main instrument to allow supply and demand equilibrium. Merchants and WMCs have market dominance owing to family relationships. Accordingly, merchants and WMCs work together and producers should supply a vast amount of crops that meet the desired product specifications. Furthermore, merchants impel commissioners to sell crops at determined prices. Because merchants have the power of holding the vast amount of crops in their relationship. As it is stated in Lusch (1976), merchants punish a WMC by selling the products through another WMC due to not cooperating with merchants.

[…] When merchants decide to sell crops through the commissioner, merchants determine the commission charge. Otherwise, merchants threaten the commissioners not to sell the crops through the commissioner.

Additionally, power perceptions of merchants about producers stem from advance payments. The relationship between WMCs and retailers is established by contract and the power of retailer stems from regularity in purchasing activities and a vast amount of purchases. Retailer demands quality products and imposes sanctions about quantity. Generally, retailer terms are accepted in agreement. According to the Act. 5957, WMCs, merchants, producers, stallholders, cooperatives, industrial buyers, and retailers should be registered to the wholesale market register system to be able to perform trading activities (Official Gazette, 2011). Rather than determining the general level of prices, the WMO monitors the declaration of quantity of products, buyers, and sellers in the wholesale market. In case of misreporting by WMCs, the office imposes a fine. The WMO aims to decrease undeclared product sell and supervises whether the sales revenue has been paid to producers by the WMCs in the system. Together with duties of WMO, conflicts between producers and WMCs arise from audits. The imposed fine is reflected producers by WMCs, yet the problem does not affect the general price levels.

[…] In case the wholesale market office imposes a fine to the wholesale market commissioners, commissioners dictate producers to make the payment for the fine.

Industrial Buyers

The parties related to industrial buyers are producers, merchants, and WMCs. Industrial buyers perform procurement activities in different ways. They purchase from informal intermediaries who are also producers and intermediate crops of other producers. Additionally, industrial buyers purchase crops from WMCs on the basis of commission. Apart from commission basis, industrial buyers purchase from merchants and producers. Within this framework, industrial buyers encourage producers by know-how, struggling with deceased, irrigation, planting, procuring advance, seed, seedling, pesticide, garden frame, and fertilizer.

[…] We encourage the growth of specific crops by giving seedling, seed, fertilizer, pesticides, procuring advances, and garden frame.

The fact remains that industrial buyers sign a contract with producers and ensure purchase guarantee without any encouragement. Due to providing value-added services control and standardized products, cooperatives are preferred by industrial buyers.

[…] Cooperatives coordinate producers and they are planting, harvesting and applying the pesticide. Applying pesticides is very important in terms of residues. We cannot control all producers. But cooperatives apply pesticides in a controlled manner. In addition, cooperatives standardize crops and provide same quality crops and value-added services.

These activities have been carried out commonly in recent years owing to the lack of industrial-oriented production. To increase industrial oriented production, industrial buyers have been tending to establish buying centers so as to purchase the crops instead of encouragement activities. Infringement of contract is the main conflict reason, but the conflict does not stem from the power of industrial buyers. The reason is the breach of contract by the producers when fresh produce price level is higher than that determined before in the contract. With the supply and demand circumstances (Zhang and Deng, 2011; Rais and Sheoran, 2015; Taylor and Fearne, 2006; Shukla and Jharkharia, 2013; Singh and Mishra, 2013; Zhang and Deng, 2011), quantity, price, and contract terms are determined by industrial buyers.

Cooperatives (Unions)

All interviewed parties agree on encouraging the cooperative system. Producers support cooperatives. Because being organized provides to be more powerful against the other parties. Since lack of bargaining power of producers leads to having no right to determine price levels. Along with the encouraging producers, cooperatives also try to organize producers by training. Bargaining by cooperatives on behalf of producers leads to trust which promotes future collaboration.

Other parties encourage the cooperative system in terms of supplying more standardized and quality products. The general view of the producers and cooperatives is that owing to lack of production planning, producers cannot sell their products at acceptable prices. The number of producers is less than that of buyers. By virtue of cooperatives, producers can play an active role in determining price levels. If the characteristics of products are suitable for storage, productions can be sold by providing equilibrium between supply and demand. According to producers and cooperatives, cooperatives need to access consumers directly. At this point, cooperatives need to develop either marketing department or establish new marketing cooperatives.

Stallholders

Along with the formal parties in or out of the wholesale market, informal parties fulfill intermediary activities. The vast amount of fresh crops sold in

marketplaces are not registered and are sold by these informal intermediaries (Aysoy et al., 2015). Apart from stallholders, merchants, and WMCs, perceptions of different parties which worked in the sector before considering that merchants have an impact on stallholders when determining final price levels. Within the scope of the relationship, as in merchants-WMCs, stallholders can be motivated by merchants in terms of sale prices (Lusch, 1976). Perception of stallholders about determining price levels is supply and demand equilibrium (Zhang and Deng, 2011; Rais and Sheoran, 2015; Taylor and Fearne, 2006; Shukla and Jharkharia, 2013; Singh and Mishra, 2013; Zhang and Deng, 2011). Additionally, transportation costs (Shukla and Jharkharia, 2013; Wilsmeier and Sanchez, 2009; Tolani and Hussain, 2013; Aramyan and Kuiper, 2009) and profits (Tolani and Hussain, 2013; Rais and Sharon, 2015; Shukla and Jharkharia, 2013; Aysoy et al., 2015; Aramyan and Kuiper, 2009) are added to final prices. Informality reduces competitiveness with regard to prices between stallholders. Rather than the conflict between stallholders-merchants-WMCs, stallholders need to these parties for supplying crops for stallholders. Besides, there is also the family relationship between merchants-stallholders and WMCs-stallholders. Generally, they support each other in the market and compromise in selling crops. If the relations between these parties are not based on family relation, merchants and WMCs are more powerful in comparison to stallholders in terms of market domination.

Discussion

According to the interpretation of the interviews, the relationship of power between the parties in fresh produce supply was summarised as in Table 3.

Tablo 3: *Relationship between the Parties in Fresh Produce Supply Chain*

	WMO	**WMC**	**Merchant**	**Industrial Buyer**	**Cooperative**	**Stallholder**	**Retailer**
Producer	**L**	**E/C**	**E**	**I/L/E**	**E/R*/I**	**L**	**L**
WMC	**L**		**E/C**	**L/C**	**L**	**C**	**L/C**
Merchant	**L**	**E/C**		**L**	--	**C**	**L/C**
Industrial B.	**L**	**L/C**	**L**		**L**	--	--
Cooperative	**L**	**L**	--	**L**		--	**L**
Stallholder	**L**	**C**	**C**	--	--		--

C-Coercive Power

E-Expert Power

I-Informational Power

L-Legitimate Power

R-Reward Power

Source: Created by Authors

The study showed that power has a significant effect on price fluctuations. These findings broadly support the work of other studies in this field linking with the fresh produce supply chain and distribution channel literature. Findings showed that the power regulates the relationships between the fresh produce supply chain actors. Prices are determined by the actors who had the power. Depending on their position, actors control the fresh produce supply channel member with the different power sources. These findings are consistent with the Mikkola (2008), Taylor (2008), Hingley (2005), Mena et al. (2013), and Xhoxhi et al. (2014). The power relations between the fresh produce supply chain actors can be summarized as below:

The WMO has the legitimate right on all related parties as the wholesale market is the system which has been determined by laws and regulations. Registered parties are obliged to declare the product details and quantity of sales. WMO controls the declaration of the number of products and registered parties. Therefore, WMO only regulates the prices indirectly regarding restraining the illegal intermediaries who affect the price levels.

WMCs-producers relationship is built on expert power, and WMC provides its power through trust (French and Raven, 1959:263) (payment guarantee and advances) and expertness (selling products in a short time through extensive distribution networks). Additionally, however, WMCs have coercive power over producers due to their illegal sanction from the viewpoint of producers. The producer-merchant relationship is based on trust. Expert power explains the power source in this case (French and Raven, 1959:263). The relationship of the producer-industrial buyer is based on informational, legitimate and expert power. Because industrial buyers have legitimate right on producers (Lusch, 1976:388; Raven, 2008:7), but the determination of contract terms stems from expert power (Gaski, 1986:11) (expertness, a vast amount of purchasing capacity) of the industrial buyer. However, the effect of purchasing power on determining the contract terms cannot be neglected. Also, industrial buyers have informational power over producers in that they provide the know-how to the producers and teach how production should be done efficiently. Mena et al. (2013) mentioned this issue in the case of grain retailers and farmer. Mena et al. (2013) also stated the potential effects of this issues on price fluctuations.

The power of producers-cooperatives relationship is based on expert (trust about bargaining experience) and reward power (encouragement). Producer-stallholder power relation is based on an agreement guaranteed by a contract. Contract terms are determined to fulfil the requirements of both sides. At this point, the amount of crops traded by producer and stallholder is less than the number of crops traded by merchants, WMCs, and industrial buyers. The relationships between retailer-producer and industrial buyer-producer are the legitimate power which is based on contract terms (Raven, 2008:6; Lusch, 1976:383). The position of the producers shows congruity with the study of Xioxhi et al. (2014). Producers aim to sell their products in a short period due to the characteristics of fresh produce.

Financial needs of the producers lead to increase the dependence of producers to intermediaries and to consider short-term outcomes. Hence, producers are the weakest parties among the fresh produce supply chain actors. This disadvantageous situation causes the producers get non-remunerative prices. The cooperative system will be beneficial for the producers to eliminate disadvantages. With the development of the cooperative system, intermediaries in the fresh produce supply chains will be reduced, so the producers will be able to reach the broad spectrum of customers by supplying the standardised, value-added and quality products with fruitful prices. As in the cooperative-retailer relations, procurement of standardised products, value-added services give cooperatives the right to determine price levels by legal contracts.

The WMC-merchants relationship is based on expert power due to being able to control and hold a vast amount of crops and long-term commercial activities (Gaski, 1986:21). Merchants also have coercive power by threatening (Raven, 2008:6) a WMC selling crops by another WMC if there are no family relationships between merchants and the WMC. The relationship of WMC-industrial buyer and WMC-cooperative are based on legitimate power, and contract terms arrange the relationships (Lusch, 1976:383). WMC-retailer relationship is based on legitimate and coercive power. If WMC does not meet the retailer requirements, threats about changing the commissioner (Raven, 2008:6) and the contract terms determine the relationship between parties (Lusch, 1976:383). The merchants and industrial buyers relationship are based on legitimate power determined by contract terms (Lusch, 1976:383). Merchant-retailer relationship is built on legitimate and coercive power. If the merchant does not meet the requirements of the retailer, the retailer changes its suppliers. The base of the power relations mainly stems from the vast amount of purchasing capacity. The result is consistent with the Hingley (2005)'s statement on that retailers provide its suppliers with more business. This situation also affects the extent of legitimate power. The increase in purchasing power is useful in determining the contract terms as in the industrial buyer case. For this reason, prices are determined to the extent permitted by legitimate power as Taylor (2005) stated in his study. The relationship of merchants and cooperatives is not identified in the study as cooperatives are directly associated with producers. The merchant-stallholder relationship is based on coercive power which stems from controlling the number of products and threatening not to sell crops.

In a merchants-stallholders relationship, merchants and WMC have power over stallholder if there is not any family relation. Merchants arrange either the promissory note or cash as in the relationship between WMC-stallholder. Considering the market dominance of merchants and WMC according to interview consequences, their relationship is based on coercive power.

There is no relationship determined between industrial buyer and stallholder, as stallholder is not a supplier of the industrial buyer. Also, the industrial buyer-retailer relationship has been excluded because processed products lose their fresh

characteristics. Cooperative-stallholder and stallholder-retailer relationships have not been determined because cooperatives sell a vast quantity of products. However, stallholder purchases limit the number of products.

The conflicts between fresh produce supply chain members arise from the claim of purchasing at lower prices and then selling at higher prices. These results reflect those of Xhoxhi et al. (2014) who also stated that considerations on profit margins foster the conflict between the intermediaries and producers. Although conflicts between fresh produce supply chain parties affect price levels from time to time, the main reason behind price fluctuation is power dimensions owned by parties in addition to the reasons mentioned in the literature.

Conclusion

This study aimed to examine the extent to which the power relations and conflict influence the fresh produce price fluctuations. Interview technique examined power relations and conflict factors. Sources of power and conflict between fresh produce supply chain parties were analysed. Distribution channel perspective enabled a useful lens for the understanding of the impacts of fresh produce supply chain actors on price fluctuations. Although prices are affected by many reasons as discussed in the literature, the effects of power relations between fresh produce supply chain members on price are neglected. Although conflict is fundamentally incited by power usage (Wilkinson, 1996:32), the effects of power on conflict were not specified in the study. Based on the interview data, it can be said that the weakest member in fresh produce supply chain is producers since unorganised producers have no right to intervene in price levels. Merchants, WMCs, industrial buyers and retailers gain dominance in fresh produce supply chain due to such reasons as paying in advance, providing a vast amount of quantity orders and incentives, concerns of producers regarding no purchase decisions, cash requirements of producers, claim of selling crops faster due to product characteristics. However, the debate between the parties about power continues. Fresh produce cooperatives are weak in Turkey. It is evident that strengthening the cooperatives provides more systematic and organised fresh produce supply chain regarding ensuring value-added services, legal conformity, eliminating illegal parties in the supply chain and enhancing contentment of both producers and final consumers. It should be said that it is difficult to put forward power and conflict dimensions between the parties correctly due to parental relationship. Within this study, examining the relationships and power sources of each party provides a holistic view regarding determining the critical points of the price mechanism, rather than finding the most powerful party in the fresh produce supply chain.

Limitations and Suggestions for Further Research

No study is without limitations. Fresh produce supply chains involve a wide range of product groups with various characteristics. It is clear that the characteristics of a specific product would be different compared with other product groups as well as the price mechanisms. Although this study provided an overview

of various experts in fresh produce supply chains, the number of parties interviewed could be increased. The total number of participants was sixteen due to time limitations.

Since this study is a preliminary study in identifying the primary price mechanisms in the fresh produce supply chain, there is still room for research. For further research, seed suppliers can be added to understand the starting point of determining price levels. Other specific product groups can be selected to examine the supply chain extensively. Also, systematic solutions should be applied to minimize price fluctuations in the market. Additionally, organic agriculture supply chain should be analysed by distribution channel perspective for providing a better understanding of price mechanisms. Although the interview method provided fruitful insight in understanding the current situation in fresh produce supply chains, other qualitative research methods can also be employed. For instance, Delphi study may reflect the views of various parties by considering the main areas of consensus or disagreement. Hence, the main points of the problem resolutions may be achieved by understanding the views of various experts in the field. Moreover, a quantitative approach including the application of surveys may help the scholars to test the hypotheses regarding the power and conflict issues as well as the price changing variables in a typical fresh produce supply chain.

Acknowledgement

We would like to submit our gratitude to "İzmir Tarım Grubu" and Agricultural Engineer (M.Sc) Okay SERÇİNOĞLU for contributing the actualisation of the study and sharing precious information.

References

Altunışık, R., Coşkun, R., Bayraktaroğlu, S. & Yıldırım, E. (2012). *Sosyal bilimlerde araştırma yöntemleri: SPSS uygulamalı*. İstanbul: Sakarya Yayıncılık.

Aramyan, L.H. & Kuiper, M. (2009). Analyzing price transmision in agri-food supply chains: An overview. *Measuring Business Excellence*, 13, 3-12.

Aramyan, L. H., Lansink, A. G. J. M. O., Van der Vorst, J. G. A. J. & Van Kooten, O. (2007). Performance measurement in agri-food supply chains: A case study. *Supply Chain Management: An International Journal*, 12, 304-315.

Atkinson, R. & Flint, J. (Ed.). (2004). *Snowball sampling*. *The Sage Encyclopedia of Social Science Research Methods*, USA: Sage Publications.

Aysoy, C., Kırlı, D. & Tümen, S. (2015). How does shorter supply chain affect pricing of fresh food? Evidence from a natural experiment, *Working paper, Central Bank of Republic of Turkey,* Ankara, October.

Azeem, M. & Salfi, N. A. (2012). Usage of NVivo software for qualitative data analysis, *Academic Research International*, 2, 262-266.

Baker, C. (2004). *Membership categorization and interview accounts, qualitative research: Theory, method and practice*. Great Britain: Sage Publications.

Bandara, W. (2006). Using NVivo as a research management tool: A case narrative. *Proceedings of QualIT2006: Quality and Impact of Qualitative Research (2006)*, Brisbane, Australia, 6-19.

Baourakis, G. & Kourgiantakis, M. (2002). The Impact of e-commerce on agro-food marketing: The case of agricultural cooperatives, firms and consumers in crete. *British Food Journal*, 104, 580-590.

Bazeley, P. & Jackson, K. (2013). *Qualitative data analysis with Nvivo*. UK: Sage Publications.

Belaya, V. & Hanf, J. (2012). Managing Russian agri-food supply chain networks with power. *Journal on Chain and Network Science*, 12, 215-230.

Bengtsson, M. (2016). How to plan and perform a qualitative study using content analysis. *NursingPlus Open*, 2, 8-14.

Benton, W. C. & Maloni, M. (2005). The influence of power driven buyer/supplier relationships on supply chain satisfaction. *Journal of Operations Management*, 23, 1-22.

Bobot, L. (2011). Functional and dysfunctional conflicts in retailer-supplier relationships*. International Journal of Retail & Distribution Management*, 39, 25-50.

Boeck, H. & Wamba, S. F. (2008). RFID and buyer-seller relationships in the retail supply chain. *International Journal of Retail & Distribution Management*, 36, 433-460.

Bonet, D. & Pache, G. (2005). A new approach for understanding hindrances to collaborative practices in the logistics channel. *International Journal of Retail & Distribution Management*, 33, 583-596.

Boulay, J. (2010). The role of contract, information systems and norms in the governance of franchise systems. *International Journal of Retail & Distribution Management,* 38, 662-676.

Briggs, C. H. (1986). *Learning how to ask sociolinguistic appraisal of the role of the interview in social science. UK:* Cambridge University Press.

Brown, J. R., Lusch, R. F. & Nicholson, C. Y. (1995). Power and relationship commitment: Their impact on marketing channel member performance. *Journal of Retailing*, 74, 363-392.

Bryman, A. (2012). Social Research Methods. (4th Edition). NY: Oxford University Press.

Chow, C. S. F., Kaynak, E. & Yang, C. J. (2011). Channel power struggle between a manufacturer giant and a retailer giant in china who is the winner?. *International Business Journal*, 21, 306- 321.

Cohen, D. & Crabtree, B. (2006). Qualitative Research Guidelines Project. July 2006. Available at: http://www.qualres.org/HomeSemi-3629.html (Access Date: 25.03.2018).

Crook, T. R. & Combs, J. G. (2007). Sources and consequences of bargaining power in supply chains. *Journal of Operations Management*, 25, 546-555.

Crouch, M. & McKenzie, H. (2006). The logic of small samples in interview-based qualitative research. *Social Science Information*, 45, 483-499.

Czarniawska, B. (2004). *Narratives in Social Science Research*. GB: Sage Publications.

Dahl, R. A. (1957). The concept of power. *System Research and Behavioral Science*, 2, 201-215.

Dapiran, G. P. & Hogarth-Scott, S. (2003). Are co-operation and trust being confused with power?. *International Journal of Retail & Distribution Management*, 31, 256-267.

Darling, J. & Gabrielsson, M. (2004). Conflict management in export distribution channels: A case focusing on skills to improve operations. *Journal of Business Economics*, 4, 383-403.

Dicicco-Bloom, B. & Crabtree, B.F. (2006). The qualitative research interview. *Medical Education*. 40, pp.314-321.

El-Ansary, D. I. & Stern, L. W. (1972). Power measurement in the distribution channel. *Journal of Marketing Research*, 9, 47-52.

Elliott, R. & Timulak, L. (2005). Descriptive and interpretive approaches to qualitative research. (Ed. Miles, J. and Gilbert, P.), *A Handbook of Research Methods in Clinical and Health Psychology*, New York: Oxford University Press, pp.147-159.

Emerson, R. M. (1962). Power-dependence relations. *American Sociological Review*, 27,31-41.

Falk, T., Schepers, J. Hammerschmidt, M. & Bauer, H. H. (2007). Identifying cross-channel dissynergies for multichannel service providers. *Journal of Service Research*, 10, 143-160.

Fernie, J., Sparks, L. & McKinnon, A. C. (2010). Retail logistics in the uk: past, present and future. *International Journal of Retail & Distribution Management*, 38, 894-914.

Fleischmann, M., Hall, J. M. & Pyke, D. F. (2003). Smart pricing: linking pricing decisions with operational insights. *MIT Sloan Management Review*, 45, 9-13.

Frazier, G. L. (1983). On the Measurement of Interfirm Power in Channels of Distribution. *Journal of Marketing Research*, 20, 158-166.

French, J. R. P. & Raven, B. H. (1959). The bases of social power. (Ed. Cartwright, D.) *Studies in Social Power*, Ann Arbor: University of Michigan Press, pp.150-167.

Fowler, F.J. (2004). *Structured interview.* The Sage Encyclopedia of Social Science Research Methods. USA: Sage Publications.

Gaski, J. F. (1984). The Theory of power and conflict in channels of distribution. *Journal of Marketing,* 48, 9-29.

Gill, P., Stewart, K., Treasure, E. & Chadwick, B. (2008). Methods of data collection in qualitative research: interviews and focus groups. *British Dental Journal,* 204, 291-295.

Handayati, Y., Simatupang, T.M. & Perdana, T. (2015). Agri-food supply chain coordination: the state-of-the- art and recent developments. *Logistics Research*, 8, 1-15.

He, Q., Ghobadian, A. & Gallear, D. (2013). Knowledge acquisition in supply chain partnerships: The role of power. *International Journal of Economics*, 141, 605-618.

Heide, J.B. & John, G. (1988). The role of dependence balancing in safeguarding transaction-specific assets in conventional channels. *Journal of Marketing*, 52, 20-35.

Hingley, M. K. (2005). Power imbalanced relationships: cases from UK fresh food supply. *International Journal of Retail & Distribution Management,* 33, 551-569.

Hingley, M., Lindgreen, A. & Grant, D .B. (2015). Intermediaries in power-laden relatil supply chains: An opportunity to improve buyer-supplier relationships and collaboration, *Industrial Marketing Management*, 50, 78-84.

Howe, W. S. (1998). Vertical market relations in the UK grocery trade: Analysis and government policy. *International Journal of Retail & Distribution Management*, 26, 212-224.

Hua, Z. & Li, S. (2008). Impacts of demand uncertainty on retailer's dominance and manufacturer-retailer supply chain cooperation*, Omega,* 36, 697-714.

Hunt, S. D. & Nevin, J. R. (1974). Power in a channel of distribution: Sources and consequences, *Journal of Marketing Research,* 11, 186-193.

Iyer, G. & Vilas-Boas, J. M. (2003). A bargaining theory of distribution channels. *Journal of Marketing Research*, 40, 80-100.

Kaipia, R., Dukovska-Popovska, I. & Loikkanen, L. (2013). Creating sustainable fresh food supply chains through waste reduction. *International Journal of Physical Distribution &Logistics Management*, 43, 262-276.

Keith, J. E., Jackson, D. W. & Crosby, L. A. (1990). Effects of alternative types of influence strategies under different channel dependence structures. *Journal of Marketing*, 54, 30-41.

Lindblom, A. & Alkkonen, R. (2006). Category management tactics: An analysis of manufacturer's control*. International Journal of Retail & Distribution Management*, 34, 482-496.

Liu, X., Tang, O. & Huang, P. (2008). Dynamic pricing and ordering decision for the perishable food of the supermarket using RFID technology. *Asia Pacific Journal of Marketing and Logistics*, 20, 7-22.

Lusch, R.F. (1976). Sources of power: Their impact on intrachannel conflict. *Journal of Marketing Research*, 8, 382-390.

Mahmoud, M. A., Hinson, R.E. & Anning-Dorson, T. (2011). Channel structure and conflict management among multinational corporations (MNCs) in Ghana. *International Management Review*, 7, 35-43.

McLaughlin, E.W. (2004). The Dynamics of Fresh Fruit and Vegetable Pricing in the Supermarket Channel. *Preventine Medicine*, 39, 81-87.

Mena, C., Humphries, A. & Choi, T.Y. (2013). Toward a theory of multi-tier supply chain management. *Journal of Supply Chain Management*, 49, 58-77.

Mikkola, M. (2008). Coordinative structures and development of food supply chains. *British Food Journal*, 110, 189-205.

Nagy, A. (2006). Collaboration and conflict in the electronic integration of supply networks. *Proceedings of the 39th Hawaii International Conference on System Sciences (2006)*, Hawaii, pp. 315-337.

Nakandala, D., Lau, H. & Zhang, J. (2016). Cost-optimization modelling for fresh food quality and transportation. *Industrial Management & Data Systems*, 116, 564-583.

Negi, S. & Anand, N. (2014). Supply chain efficiency: an insight from fruits and vegetables sector in India. *Journal of Operations and Supply Chain Management*, 7, 154-167.

Noor, K.B.M. (2008). Case study: A strategic research methodology. *American Journal of Applied Sciences,* 5, 1602-1604.

Official Gazette, (2011). The act on regulation of the trade of vegetable-fruit and other commodities with sufficient depth in respect of supply and demand. Available at: http://www.resmigazete.gov.tr/eskiler/2011/12/20111207-13.htm (Access Date: 16 August 2017).

Ogbonna, E. & Wilkinson, B. (1998). Power relations in the UK grocery supply chain: developments in the 1990s. *Journal of Retailing and Consumer Services*, 5, 77-86.

Onwuegbuzie, A. J. & Collins, K. M. T. (2007). Topology of mixed methods sampling design in social science research. *The Qualitative Report,* 12, 281-316.

Osmonbekov, T., Bello, D. C. & Gilliland, D.I. (2009). The impact of e-business infusion on channel coordination, conflict and reseller performance", *Industrial Marketing Management*, 38, 778-784.

Rais, M. & Sheoran, A. (2015). Scope of supply chain management in fruits and vegetables in India. *Journal of Food Processing and Technology*, 6, 427-434.

Raven, B. H. (2008). The bases of power and the power /interaction model of interpersonal influence. *Analyses of Social Issues and Public Policy*, 8, 1-22.

Ritchie, J. & Ormston, R. (2014). *The application of qualitative methods to social research. Qualitative Research Practice: A Guide for Social Science Students and Researchers* (2nd Edition), London: Sage Publications.

Rokkan, A.I. & Haugland, S.A. (2002). Developing relational exchange, effectiveness and power. *European Journal of Marketing*, 36, 211-230.

Rolfe, J., Bretherton, P., Hyland, P. & Soosay, C. (2006). Statistical techniques to facilitate the launch price of fresh fruit: bringing science to the art of pricing. *British Food Journal*, 108, 200-212.

Sans, P., Fontguyon, G. & Briz, J. (2005). Meat safety as a tool of differentiation for retailers spanish and french examples of meat "supply chain brands". *International Journal of Retail & Distribution Management*. 33, 618-635.

Saunders, B., Sim, J., Kingstone, T., Baker, S., Waterfield, J., Bartlam, B., Burroughs, H. & Jinks, C. (2017). Saturation in qualitative research: exploring its conceptualization and operationalization. *Qual Quant*.

Sezen, B. (2004). Expected profit approach used in discount pricing decisions for perishable products. *International Journal of Retail & Distribution Managemen*t, 32, 223-229.

Sheu, J-B. (2015). Power shifts and relationship quality improvement of producer-retailer green channel dyads under government intervention. *Industrial Marketing Management*, 50, 97-116.

Shukla, M. & Jharkharia, S. (2013). Agri-fresh produce supply chain management: A state-of- the-art literature review. *International Journal of Operations & Production Managemen*t, 33, 114- 158.

Singh-Peterson, L., Shoebridge, A. & Lawrence, G. (2013). Food pricing, extreme weather and the rural/urban divide: A case study of northern nsw, Australia. *Journal of Food Security*, 1, 42-48.

Singh, U. S. & Mishra, U. S. (2013). Vegetable supply chain: A conceptual study. *Food Science and Quality Management,* 15, 30-35.

Swasy, J. L. (1979). Measuring the bases of social power. *Advances in Consumer Research*, 6, 340-346.

Taylor, D.H. (2005). Value chain analysis: An approach to supply chain improvement in agri-food supply chain. *International Journal of Physical Distribution & Logistics Management*, 35, 744-761.

Taylor, D.H. & Fearne, A. (2006). Towards a framework for improvement in the management of demand in agri-food supply chains. *Supply Chain Management: An International Journal,* 11, 379- 384.

Tikoo, S. (2005). Franchisor use of influence and conflict in a business format franchise system. *International Journal of Retail & Distribution Management*, 33, 329-342.

Tolani, V. C. & Hussain, H. (2013). Strategic change in model of fruit and vegetables supply chain. *Global Journal of Management and Business Studies*, 3, 965-970.

Tsay, A. A. & Agrawal, N. (2004). Modeling conflict and coordination in multi-channel distribution systems: A review. (Ed: Simchi-Levi, D. Wu, D. and Shen, M.), *Supply Chain Analysis in the E-business Era*, Boston: Kluwer Academic Publishers, pp.1-56.

Türkiye Ziraat Odaları Birliği (2010). Türkiye Ziraat Odaları ve Ziraat Odaları Birliği Kanunu. http://www.tzob.org.tr/Portals/0/Dokumanlar/6964_Sayili_kanun.pdf (Access Date 12 August 2017).

UNCTAD (United Nations Conference on Trade and Development), (2008). Addressing the global food crisis: Key trade, investment and commodity policies in ensuring sustainable food security and alleviating poverty. *Advance Unedited Version, The High-Level Conference on World Food Security: The Challenges of Climate Change and Bioenergy* (2008), Rome: Italy pp.1-25.

Ward, R. W. (1982). Asymmetry in retail, wholesale, and shipping point pricing for fresh vegetables. *American Journal of Agricultural Economics*. 64, 205-212.

Webb, K. L. & Hogan, J. E. (2002). Hybrid channel conflict: causes and effects on channel performance*. Journal of Business & Industrial Marketing*, 17, 338-356.

Weitz, B. and Wang, Q. (2004). Vertical relationships in distribution channels: A marketing perspective. *The Antitrust Bulletin*, 49, 859-876.

Wilkinson, I. F. (1996). Distribution channel management: Power considerations. *International Journal of Physical Distribution & Logistics Management,* 26, 31-41.

Wilmsmeier, G. & Sanchez, R.J. (2009). The relevance of international transport costs on food prices: Endegenous and exogenous effects. *Research in Transport Economics*, 25, 56-66.

Wong, C.Y. & Johansen, J. (2008). A framework of manufacturer-retailer coordination process: Three case studies. *International Journal of Retail & Distribution Management*. 36, 387-408.

Xhoxhi, O., Pedersen, S.M., Lind, K.M. & Yazar, A. (2014). The determinants of intermediaries' power over farmers' margin-related activities: Evidence from Adana, Turkey. *World Development*, 64, 815-827.

Yeung, J.H.Y., Selen, W., Zhang, M. & Huo, B. (2009). The effects of trust and coercive power on supplier integration. *International Journal of Production Economics*, 120, 66-78.

Zamawe, F.C. (2015). The implication of using nvivo software in qualitative data analysis: Evidence-based reflections*. Malavi Medical Journal*, 27, 13-15.

Zhang, S. and Deng, X. (2011*). Fresh fruits and vegetables distribution system in China: Analysis on the feasibility of agricultural super-docking*, MSc Thesis, Linköping University, Sweden.

Zhao, X., Huo, B., Flynn, B. B. & Yeung, J. H. Y. (2008). The impact of power and relationship commitment on the integration between manufacturers and customers in a supply chain. *Journal of Operations Management,* 26, *368-388.*

Zhou, N., Zhuang, G. & Yip, L.S-C. (2007). Perceptual difference of dependence and its impact on conflict in marketing channels in China: An empirical study with two-sided data. *Industrial Marketing Management*, 36, 309-321.

Zikmund, W. G. & Catalanello, R. F. (1976). Managing channel conflict through channel development. *Journal of the Academy of Marketing Science*, 4, 801-813.

Appendix

1. What are the problems experienced and disruptions encountered in the fresh produce supply chain in Turkey?

2. Is there any matter of conflict between the fresh produce supply chain parties? Do these problems in the fresh produce supply chain stem from the conflict between fresh produce supply chain parties?

3. What are the reasons behind this conflict?

4. What are the factors that increase price levels of fresh produces in Turkey?

5. Does the conflict between fresh produce supply chain actors affect the price levels of fresh produces?

6. Who plays the most effective role in determining the price levels of fresh produce in fresh produce supply chain?

7. How do/does actor/actors attain the power?

8. How does the power incite the conflict in fresh produce supply chain?

9. What are the effects of the power upon these problems?

10. How does the power affect the price levels?

11. What kind of measures should be taken to prevent the price increases?