

ISTANBUL TECHNICAL UNIVERSITY ★ GRADUATE SCHOOL OF SCIENCE
ENGINEERING AND TECHNOLOGY

**DETERMINANTS OF ELECTRICITY SUPPLIER SWITCHING:
A RESEARCH BASED ON SMALL ENTERPRISE CUSTOMERS**

Ph.D. THESIS

Anıl Savaş KILIÇ

Department of Management Engineering

Management Engineering Program

OCTOBER 2015

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**Anıl Savaş KILIÇ
(507062002)**

Department of Management Engineering

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Thesis Advisor: Prof. Dr. Nimet URAY

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İSTANBUL TEKNİK ÜNİVERSİTESİ ★ FEN BİLİMLERİ ENSTİTÜSÜ

**ELEKTRİK TEDARİKÇİSİ DEĞİŞTİRMİYİ ETKİLEYEN FAKTÖRLER:
KÜÇÜK ÖLÇEKLİ İŞLETMELERDEN OLUŞAN MÜŞTERİLER ÜZERİNE
BİR ARAŞTIRMA**

DOKTORA TEZİ

**Anıl Savaş KILIÇ
(507062002)**

İşletme Mühendisliği Anabilim Dalı

İşletme Mühendisliği Programı

Tez Danışmanı: Prof. Dr. Nimet URAY

EKİM 2015

Anıl Savaş Kılıç, a **Ph.D.** student of ITU **Institute of / Graduate School of Science Engineering And Technology** student ID **507062002**, successfully defended the **thesis/dissertation** entitled “**DETERMINANTS OF ELECTRICITY SUPPLIER SWITCHING: A RESEARCH BASED ON SMALL ENTERPRISE CUSTOMERS**”, which he prepared after fulfilling the requirements specified in the associated legislations, before the jury whose signatures are below.

Thesis Advisor : **Prof. Dr. Nimet URAY**
İstanbul Technical University

Jury Members : **Prof. Dr. Selime SEZGİN**
İstanbul Bilgi University

Prof. Dr. Şebnem BURNAZ
İstanbul Technical University

Assoc. Prof. Dr. Elif KARAOSMANOĞLU
İstanbul Technical University

Assoc. Prof. Dr. Zeynep İrem ERDOĞMUŞ
Marmara University

Date of Submission : 10 July 2015

Date of Defense : 8 October 2015

To each of you who supported generously along the way,

FOREWORD

I would like to thank;

My advisor Prof. Dr. Nimet URAY for the self sacrificing alignment with my fluctuant time allocation for the study,

Progress committee members Prof. Dr. Selime SEZGİN and Prof. Dr. Şebnem BURNAZ who kept me in the right direction along with my advisor,

Prof. Dr. Burç ÜLENGİN, Prof. Dr. Sencer ECER, Assoc. Prof. Dr. Dilay ÇELEBİ, Assoc. Prof. Dr. Elif KARAOSMANOĞLU, and Res. Ass. Melek DEMİRAY who supported me resolving deadlock problems,

İstanbul Technical University Office of Scientific Research Projects (İTÜ BAP) for the financial support,

Ercan BALKOÇ, Gül GÖKDAĞLI, and Kamil TAŞALTIN for the valuable discussions,

Elif KUYUCU, Gizem KILIÇ, Gökhan RENÇBEROĞLU, Ozan ÖZBULAK, and Ömer İLTER who helped me with finding sector information & data,

Frekans Araştırma and Çağlayan IŞIK for high responsiveness, positive attitude, and being helpful,

James Gaskin and “istatistik ve analiz” Youtube channels for the great videos on SEM analysis,

Jerry SEINFELD and Louis C.K. for reducing my stress levels anytime I need,

and finally all my friends & family who granted me their time to cheer me up until now.

July 2015

Anıl Savaş KILIÇ

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ABBREVIATIONS

ACER	: Agency for the Cooperation of Energy Regulators
AER	: Australian Energy Regulator
AGFI	: Adjusted Goodness-of-Fit Index
AVE	: Average Variance Extracted
BO	: Build - Operate
BOT	: Build – Operate - Transfer
BTS	: Bartlett Test of Sphericity
B2B	: Business to Business
B2C	: Business to Consumer
CATI	: Computer Aided Telephone Interview
CEER	: Council of European Energy Regulators
CFA	: Confirmatory Factor Analysis
CFI	: Comparative Fit Index
CIT	: Critical Incident Technique
DECC	: Department of Energy & Climate Change
DUY	: Dengeleme ve Uzlaştırma Yönetmeliği (Balancing and Settlement Regulation)
EC	: European Commission
EFA	: Exploratory Factor Analysis
EPDK	: Enerji Piyasaları Düzenleme Kurumu (Energy Market Regulatory Authority)
EPİAŞ	: Enerji Piyasaları İşletme A. Ş. (Energy Markets Operation Company)
ERGEG	: European Energy Regulators Group for Electricity & Gas
EÜAŞ	: Elektrik Üretim A. Ş. (Turkish Electricity Generation Company)
FG	: Focus Group
GF	: Goodness of Fit
GFI	: Goodness of Fit Index
IEA	: International Energy Agency
IMF	: International Money Fund
IT	: Information Technologies
KMO	: Kaiser-Meyer-Olkin
KOSGEB	: Küçük ve Orta Ölçekli İşletmeleri Geliştirme ve Destekleme İdaresi Başkanlığı (Small and Medium Enterprises Development Organization)
Law No 4628	: Elektrik Piyasası Kanunu (Electricity Market Law)
Law No 6446	: Yeni Elektrik Piyasası Kanunu (New Electricity Market Law)
MAR	: Missing at Random
MCAR	: Missing Completely at Random
METİ	: Japan Ministry of Economy, Trade and Industry
MNAR	: Missing Not at Random
NFI	: Normated-Fit Index

NNFI	: Non-normated Fit Index
NordREG	: Nordic Energy Regulators
OSB	: Organize Sanayi Bölgesi (Organized Industry Zone)
OT	: Operational Technologies
ÖİB	: Özelleştirme İdaresi Başkanlığı (Privatization Administration)
PAF	: Principal Axis Factoring
PCA	: Principal Component Analysis
PPM	: Pull, Push, and Mooring
RMSEA	: Root Mean Square Error of Approximation
SEM	: Structural Equation Modeling
SES	: Socio-economic Status
SMC	: Squared Multiple Correlations
SME	: Small and Medium Enterprises
SPAT	: Switching Path Analysis Technique
SPSM	: The Service Provider Switching Model
SRW	: Standardized Regression Weights
SSM	: Service Switching Model
TCAP	: Texas Coalition for Affordable Power
TEAŞ	: Türkiye Elektrik Anonim Şirketi (Turkish Electricity Public Company)
TEDAŞ	: Türkiye Elektrik Dağıtım Anonim Şirketi (Turkish Electricity Distribution Public Company)
TEİAŞ	: Türkiye Elektrik İletim Anonim Şirketi (Turkish Electricity Transmission Public Company)
TEK	: Türkiye Elektik Kurumu (Turkish Electricity Authority)
TETAŞ	: Türkiye Elektrik Ticaret Anonim Şirketi (Turkish Electricity Trade Public Company)
TÜAD	: Türkiye Araştırmacılar Derneği (Turkish Researchers' Association)
UK	: United Kingdom
URW	: Unstandardized Regression Values
US	: United States
WSJ	: Wall Street Journal

LIST OF SYMBOLS

ρ	: own reliability
ρ_c	: composite reliability
ρ_v	: average variance extracted
θ	: error variance

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DETERMINANTS OF ELECTRICITY SUPPLIER SWITCHING: A RESEARCH BASED ON SMALL ENTERPRISE CUSTOMERS

SUMMARY

Energy markets are being liberalized throughout the globe pursuing efficiency, better customer service, and lower prices; however they haven't fully succeeded yet in Europe and the rest of the world. In the energy sectors of different countries, there is not sufficient evidence that consumers are willing to switch, which would in turn create a market of high mobility (Brennan, 2007; Watson et al., 2002) and force the electricity suppliers to decrease the prices and increase their service performances. Especially the retail competition at the residential level hasn't fully succeeded yet (Brennan, 2007). The global average switching rate for 2011, calculated based on residential and commercial consumers in 38 electricity markets is 7.75 percent (VaasaETT, 2012b). While switching activity is an indicator of a successful liberalization and a well-functioning market, it also means customer loss and acquisition from the energy companies' point of view (Bansal et al., 2005). Therefore, it has a significant importance for the market regulator and market participants including customers and energy suppliers, making it a concept that should be understood thoroughly.

Many studies have been conducted to understand consumer switching since 1990s. A large amount of those studies have focused on B2C customers in a variety of service sectors such as telecommunications, banking, and online services. In addition; studies on switching in the electricity supply market has recently started to grow. While electricity supply market switching has mostly drawn attention from the household consumer point of view in studies such as Walsh et al. (2005), Gamble et al. (2009), Wilson and Price (2010), Annala et al. (2013) among many others; B2B consumers are relatively neglected in the literature. Especially small and medium enterprises [SME] are rarely targets of both researchers and electricity suppliers, forming an untapped potential (Accenture, 2013).

On the other hand, there are sector reports of institutions and regulatory bodies including non-household segments such as International Energy Agency [IEA] (2011) and VaasaETT (2012b) among many others; however they lack academical models of switching behavior due to their business-wise priorities.

Moreover, the studies are conducted in the fully liberalized markets, where residential, industrial and commercial customers are all eligible to choose their energy supplier (VaasaETT, 2012b) and those studies cannot tap the characteristics of a market in its early-mid stages (Australian Energy Regulator [AER], 2012).

This study aims to build a model of electricity supplier switching for a relatively neglected customer segment in the business to business [B2B] energy markets: SMEs. The model proposed in this study is mainly based on the study of Bansal et al. (2005) who adapt push, pull, and mooring [PPM] framework in migration literature into services switching, using the similarities between human migration and customer switching.

The research model aims to reveal a clearer understanding of why SMEs, who form a significant part of the electricity supply customers and yet neglected with respect to other segments, choose to switch. In order to achieve this goal, a model is formed, which (1) sets forth the determinants of switching (2) in a B2B setting (3) that is made up of SMEs (4) in an electricity market in its early-mid liberalisation phase (Turkey) where the eligibility limit is 4,000 kWh / year (as of 2015). This limit excludes almost all the households from the competitive market yet includes SMEs who are eligible since 2011, when the eligibility limit was 30,000 kWh / year.

Literature research and a qualitative study are conducted to support and contribute to the existing PPM model, and develop an extended version of it. The model is tested using survey data, which is put to exploratory factor analysis, confirmatory factor analysis, and structural equation modeling methods respectively. The final model passed all necessary tests and met all model fit criteria.

It is concluded that Push factors have an influencing effect on switching intention whereas Pull and Mooring factors are ineffective. In other words, SME consumers start to evaluate switching when they experience an incident with their current supplier, instead of being influenced by any competitors and/or the mooring effects that resides on the way to switching.

After the series of analyses, a new push factor is formed. This factor is composed of trust, commitment, value, and price. It has become the strongest component of the push construct. The new factor is interpreted in a way that; the price and value is ineffective in the absence of trust and commitment. In addition, the only value of electricity suppliers, as perceived by SME consumers, is price.

Satisfaction and service quality are the next two strongest push components that influence switching intention. In addition, weak social bonds with the current supplier's employees, although to a lesser extent, also results in switching intention.

Sector type, country characteristics, customer awareness level, and the stage in the industry life cycle are thought to be affecting how research model factors influence switching. It is believed that as the industry life cycle move towards maturity, customer awareness increases. As both proceed together; pull and mooring constructs of the model step in, most probably former being earlier than the latter. Heuristically, it can be said that if the factors related to the target location are ineffective, than the factors that reside on the way to the target location are not even a matter of discussion. Therefore, it is expected that pull factors start being effective first, and only then mooring factors will be in customers' eyesight moving towards industry maturity.

Country characteristics is thought to be another factor influencing the effectiveness of the model. Despite boundaries are dissolving across different cultures and economies (Ger, 1999) that emerges a homogeneous global consumer culture (Cleveland & Laroche, 2007); globalization also empowers national identities (Ger, 1999). Therefore, Turkey's culture and its impact on consumer behaviour should be taken into account.

In conclusion, the relationship between the ineffectiveness of pull and mooring factors and impact of awareness levels, country characteristics, and industry life cycle should be studied deeper in future research due to the limitations of this study: (1) Surveys are conducted by CATI method (2) Limited number of items were used to test the factors of the model (3) Surveys are conducted in a semi-liberalized market.

Practical implications of this study are mostly for the market players and regulatory bodies in the energy sector. It is recommended that electricity suppliers (1) focus on customer retention by doing basics right, building trust, and investing in advertisements that build brand image in the exploratory stage of the industry, (2)

continue their IT & OT investments to improve their customer experience for the development and maturity stages, (3) approach SMEs with sales representatives creating maximum proximity possible, (4) offer customized services to SMEs. Pushing the market towards maturity stage is recommended for the regulatory bodies by arranging the necessary regulations that ease switching, boost customer awareness, and complete/monitor related infrastructure investments.

ELEKTRİK TEDARİKÇİSİ DEĞİŞTİRMİYİ ETKİLEYEN FAKTÖRLER: KÜÇÜK ÖLÇEKLİ İŞLETMELERDEN OLUŞAN MÜŞTERİLER ÜZERİNE BİR ARAŞTIRMA

ÖZET

Verimliliğe, daha iyi müşteri hizmetlerine ve daha iyi fiyatlara kavuşma peşinde olan dünya ülkeleri, enerji sektörlerini serbestleştirme süreçlerini hızla işletmektedir. Ancak, ne Avrupa’da, ne de Dünya’da tam bir başarıya ulaşamamıştır. Başarının ölçütlerinden biri olan “tedarikçiler arasındaki müşteri hareketleri”nin elektrik tedarikçileri açısından anlamı müşteri kaybı veya kazancı olduğundan; bu kavramın gerek sektör düzenleyicisi kurumlar, gerekse sektör katılımcıları tarafından çok iyi anlaşılması gerekmektedir.

Bu çalışma; enerji sektörü özelindeki örgütlerarası pazarlama çalışmalarında nispeten ihmal edilen bir tüketici segmenti olan “küçük ve orta büyüklükteki işletmeler [KOBİ]” için bir elektrik tedarikçisi değiştirme modeli sunmayı amaçlamaktadır. Önerilen model; Bansal ve diğ. (2005) tarafından göç hareketleri ile tedarikçi değiştirme hareketleri arasındaki benzerlikler kullanılarak oluşturulan, göç hareketleri faktörlerinin literatürdeki yaygın sınıflandırması olan itme, çekme ve durdurma [İÇD] yapısını içeren bir tedarikçi değiştirme modeli temel alınarak geliştirilmiştir. Model, literatür araştırması ve kalitatif çalışmayla desteklenmiş, genişletilmiş ve anket yöntemi ile toplanan verilerin analizi ile test edilmiştir. Çalışmanın kavramsal modelinin testinde sırasıyla Açıklayıcı Faktör Analizi, Doğrulayıcı Faktör Analizi ve Yapısal Eşitlik Modeli yöntemleri kullanılmıştır. Nihai model, ilgili tüm test ve model-veri uyumu kriterlerine uygun şekilde oluşturulmuştur.

Çalışmanın sonucunda itme faktörlerinin tedarikçi değiştirme niyeti üzerinde etkili olduğu, çekme ve durdurma faktörlerinin ise etkisiz olduğu görülmüştür. Başka bir deyişle KOBİler, mevcut elektrik tedarikçileri ile bir sorun yaşamadıkları sürece, tedarikçi değiştirme konusunu gündemlerine almamaktadırlar. Rakip firmaların etkileri veya tedarikçi değiştirme sürecindeki engelleyici faktörlerin bu yönelimde bir payları yoktur. Çekme ve durdurma faktörlerinin etkisizliğinin kaynağı olarak, anket yapılan topluluğun seçildiği sektörün nispeten düşük serbestleşme seviyesi olduğu düşünülmektedir. Bu sektör yapısındaki müşterilerin rekabete ilişkin haberdarlık düzeyinin düşük olduğu tespit edilmiştir, bu da mevcut seçeneklerin varlığından habersiz olmaları sonucunu doğurmaktadır. Ancak çekme ve durdurma faktörlerinin tedarikçi değiştirme kararında etkisiz olmasının, tüketicilerin haberdarlık düzeyi ile nasıl ve ne yönde ilişkisi olduğu gelecekteki çalışmalarda derinlemesine incelenmelidir. Zira bu çalışmanın önemli kısıtları mevcuttur: (1) Anketler telefon yoluyla gerçekleştirilmiştir (2) Faktörleri test etmek için kısıtlı sayıda değişken kullanılmıştır (3) Anketlerin gerçekleştirildiği pazar tam serbestleşmeye henüz geçmemiştir.

1. INTRODUCTION

Liberalization processes are moving forward in the global power & utilities sectors, which once used to be public, lacking competition and various offers for the consumers. The aim of liberalization of public sectors, in general, is to let the markets converge to so-called “perfect competition”, where the prices converge to marginal costs. As a result, as emphasized by Annala et al. (2013), the public could enjoy the best price/service quality combination that meets their needs (Joskow, 2006) with a greater operating efficiency (Payne & Frow, 1997). In the energy sectors, there is not much evidence that consumers are willing to switch to new electricity suppliers, which would in turn create a market of high mobility (Brennan, 2007; Watson et al., 2002) and force the electricity suppliers to decrease the prices and increase their performances. Especially the retail competition at the residential level hasn’t fully succeeded yet (Brennan, 2007).

In the EU; where there is a range of different levels of liberalized electricity markets, there seems to be a problem according to European Energy Regulators Group for Electricity & Gas [ERGEG] who states that “... the evolution towards a real competitive retail market is still slow, cutting off consumers from the benefits of increased efficiency on wholesale markets” (ERGEG, 2010, p. 7). European Commission [EC] Directorate - General for Health & Consumers (2010) indicates that “... consumers are generally relatively uncertain that they are on the cheapest tariff” (p.397). EU households could have saved 9% by switching in 2011 (Naumann et al., 2010). Finnish customers on the default tariff could have found a cheaper offer, yet 60-70 percent of them choose not to make a move (Annala et al., 2013).

The picture also looks similar globally. The global average switching rate for 2011, calculated based on residential and commercial consumers in 38 electricity markets is 7.75 percent (VaasaETT, 2012b). In New Zealand case, household consumers don’t capture the potential average savings of NZ\$165 per subscription a year (Ndebele & Marsh, 2013). VaasaETT (2012a) reveals that “... there is some correlation between

potential savings and switching levels... However, the correlation is far from perfect” (p. 26).

That is to say, “the efficiency of deregulated markets is jeopardized by consumers failing to switch supplier to the extent that would be beneficial to them” (Gamble et al., 2009, p. 814). Customer activity is expected to be high in liberalized markets. That is the reason why the percentage of customers who are active on the market is the first indicator (Defeuilley, 2009) to be monitored in order to assess the success of the liberalisation. While customer mobility provides a useful indicator of market activity (IEA, 2011), it must be interpreted with care because “... high switching rates alone should not be considered a proof of a well-functioning market...” (Annala et al., 2013, p. 461):

Switching is sometimes high during the early stages of market development, when customers can first exercise choice, but may then stabilise as a market acquires depth. Similarly, switching may be low in a competitive market if retailers deliver good quality service that gives customers no reason to change. (AER, 2012, p. 125)

Even when the consumers decide to switch for better prices, they may fail to make rational choices. In the UK case, Wilson and Price (2010) found out that “... a fifth of the consumers actually lost surplus as a result of switching; and that, in aggregate, switching consumers appropriated only half of the maximum gains available to them” (p. 666).

To sum up, the purpose of the liberalisation process is to enable consumers to have the best possible price and quality of service. It takes three sides to achieve this goal; supplier side should be active in providing best offers, customer side should be active to seek for them, and finally regulatory body should provide the best market mechanism that creates this environment. However, this picture has not been fully accomplished in the electricity supply markets yet. The customer side is still lacking. Because it is also observed that lower price is not a sufficient incentive to create high customer mobility, identification of other switching factors has a key importance to operating an efficient market environment.

1.1 The Research Problem and the Limitations of the Previous Research

While high rates of service provider switching is an indicator of a healthy market activity, it also means customer loss and acquisition from the service providers’ point

of view (Bansal et al., 2005). Therefore, switching concept has a significant importance for the market regulator and the market participants including customers and service providers, and it should be understood thoroughly.

Many studies have been conducted to understand why consumers defect since 1990s. A large amount of those studies focuses on B2C customers in a variety of service sectors such as telecommunications, banking, and online services.

In addition; studies on switching in the electricity supply market has recently started to grow. While switching in the electricity supply market has mostly drawn attention from the household consumer point of view in studies such as Walsh et al. (2005), Gamble et al. (2009), Wilson and Price (2010), Annala et al. (2013), Gerpott and Mahmudova (2010), Hartmann and Ibanez (2007), Walsh et al. (2006), Waterson (2003), Ibáñez et al. (2006), and Monaco (2011) among many others; B2B consumers are relatively neglected in the literature.

Especially SMEs are rarely targets of both researchers and electricity suppliers, forming an untapped potential (Accenture, 2013). On the other hand there are sector reports of institutions and regulatory bodies including non-household segments such as IEA (2011), VaasaETT (2012b), Department of Energy & Climate Change [DECC] (2010), Agency for the Cooperation of Energy Regulators [ACER] and Council of European Energy Regulators [CEER] (2013) and EC Directorate - General for Health & Consumers (2010) among many others; however they lack academical models of switching behavior due to their business-wise priorities.

Moreover, the studies are conducted in the fully liberalized markets, where "... residential and I&C (Industrial and Commercial) customers are all eligible to choose their energy retailer" (VaasaETT, 2012b, p. 12) and those studies cannot tap the characteristics of a market in its early-mid stages (AER, 2012).

In conclusion, when assessed separately or altogether; switching activity of SMEs in electricity supply markets in their early-mid liberalisation phases needs further examination. Thus, a study that aims to analyze the switching behavior of SMEs in electricity supply markets in an emerging country can give important insights and contribute to the related literature.

1.2 Purpose of the Study

In primary industries like energy, the markets are highly regulated even when they are fully liberalized, because the supply sustainability cannot be left to its fate or the will of the private suppliers. Therefore, the role of regulatory intervention, which is constantly adjusting the delicate balance of the competition, is critical. The implications of the implemented regulations on the competition are continuously being monitored and the regulations are adjusted accordingly by regulators.

Regulatory bodies also need to take action regarding the reluctance of consumers to change their suppliers, and find the answer to the question: “Why does this phenomenon still exist despite the fact that many years have passed since market liberalization in liberalized electricity markets?” Understanding the determinants of switching has a key importance to answer this question. Once the determinants are identified, the relevant regulatory steps can be taken to decrease the switching barriers to foster competition. On the other hand, the utilities can respond to the identified determinants with the right strategies creating a more competitive market.

The purpose of this study is to provide a robust switching model that reveals a clearer understanding of why SMEs, who form a significant part of the customers and yet neglected with respect to other segments, switch. In order to achieve this goal, a model is formed, which (1) sets forth the determinants of switching (2) in a B2B setting (3) that is made up of SMEs (4) in an electricity market in its early-mid liberalisation phase (Turkey) where the eligibility limit is 4,000 kWh / year (as of 2015). This limit excludes almost all the households from the competitive market yet includes SMEs who are eligible since 2011 when the eligibility limit was 30,000 kWh / year.

1.3 Significance of the Study

This study is based on Bansal et al. (2005)’s study where the authors made use of the similarity between migration and switching literature. Their achievement was a service switching model constructed on the Pull-Push-Mooring [PPM] framework that has matured since Ernst Ravenstein’s “Laws of Migration” report published by Journal of the Statistical Society of London in 1885, which is known to be the beginning of the migration theory (Figure 1.1).

Besides many other similarities of switching and migration, there is one specific similarity that addresses this study's aim to understand switching in liberalised markets. According to Lee (1996), high levels of internal migration is expected in developed countries, and vice versa: an immobile population is expected in least developed countries. This is a concept that can be mapped to the expectation of high levels of switching in fully liberalised markets.

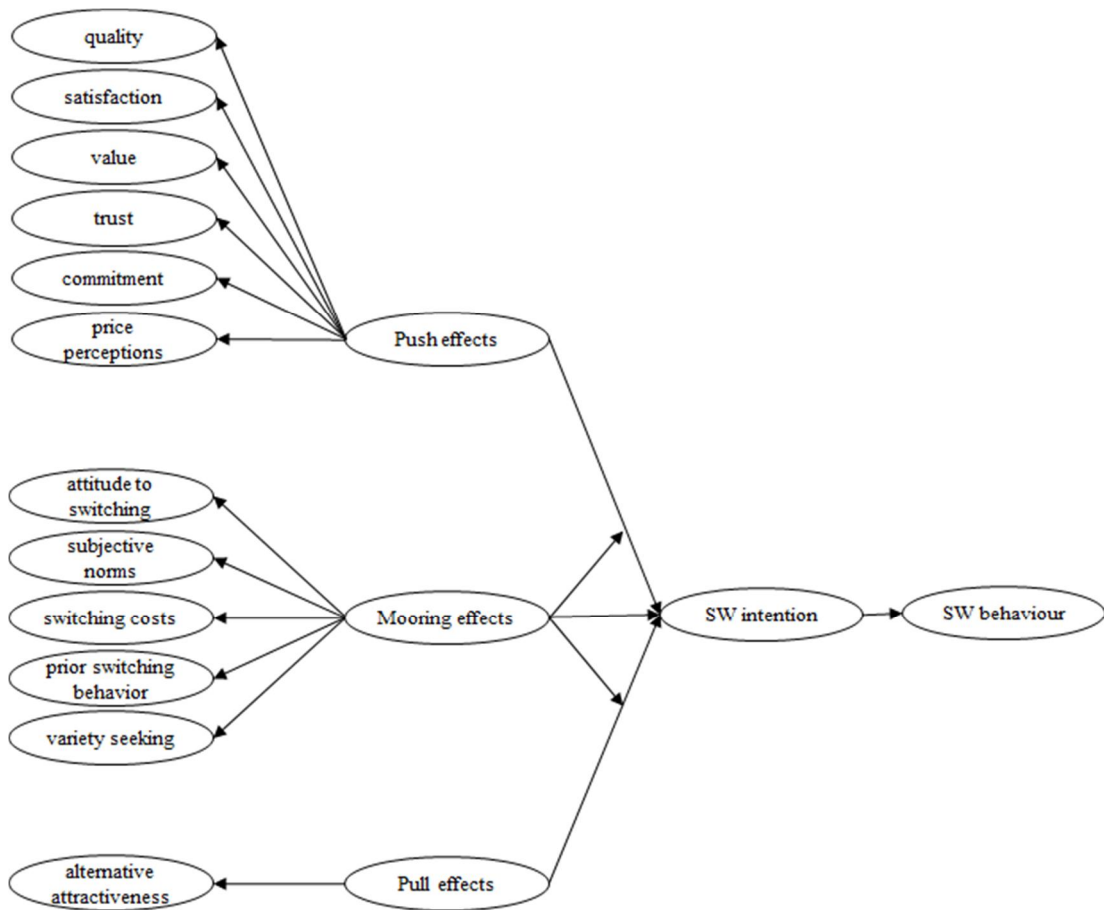


Figure 1.1 : Bansal et al. (2005)'s switching model based on PPM framework in migration theory.

Several studies utilized Bansal et al. (2005)'s model in a variety of service sectors. Twelve empirical studies are identified other than Bansal et al. (2005), which were conducted for auto-repair service and hairstyling services.

- blogging (Zhang et al., 2008),
- electricity supply for households (Ek & Söderholm, 2008),
- hairstyling services (Listyarini et al. ,2009),
- social networking sites (Zengyan et al., 2009),

- facilities management services – B2B (Naumann et al., 2010)
- online gaming (Hou et al., 2011),
- personal communication technologies (Ye & Potter, 2011),
- human resources in information technologies (Fu, 2011),
- multichannel services (Chiu et al., 2011),
- mobile shopping (Lai et al., 2012),
- online services (Hsieh et al., 2012),
- blogging (Zhang et al., 2012).

Varying from all mentioned studies, the contribution of this study can be listed as follows:

- The PPM model is extended thoroughly from both migration and service switching perspective, adding the utilities sector characteristics by academic literature, sector reports, and focus group studies
- All of the constructs of the original model and additional constructs are tested accordingly without any exclusion of factors
- The study is conducted for SME customers in the utilities sector in a B2B setting
- The market environment is in its early-mid liberalisation phase where there is competition in every segment except households.

All these qualities put together make the contribution of this study unique among others.

1.4 Organization of the Study

The study includes 7 phases:

1. Literature review on switching models based on PPM framework in migration theory: This phase is conducted in order to understand the scope and contribution of the studies based on PPM framework in migration theory, determine the scope and contribution of this study.

2. *Literature review on migration theory*: Migration literature is examined in order to (1) provide more support for the model (2) derive additional constructs for the model.

3. *Literature review on service switching*: Service switching literature was examined in order to (1) provide more support for the model (2) derive additional constructs for the model. A specific focus was directed on the utilities sector in order to derive sector specific constructs.

4. *Focus group studies*: Focus groups are conducted in order to derive (1) sector specific (2) market specific (3) B2B specific constructs and/or (4) provide more support for the model.

5. *Development of the model*: Based on the literature research and focus group studies, an extended model is developed.

6. *Development of the measures and the questionnaire*: Measures and questionnaire were developed based on (1) the literature research, (2) survey study limitations, and (3) the statistical method

7. *Survey study*: 366 CATI surveys are collected from B2B customers.

After completing seven mentioned steps, limitations of the study and implications for the electricity supply provider executives are also discussed following the conclusion and discussion sections.

2. A REVIEW ON ELECTRICITY SUPPLY MARKET

Prior to the literature study, electricity supply markets are examined to provide foundation that the rest of the study is established on. The history of electricity market liberalization and the issues are discussed from switching perspective at global, Europe, and Turkey levels respectively in the following sections.

Beginning with the early 1980s, developed countries and some of the emerging countries have started to liberalize their infrastructural sectors. This move was closely related to the increasing importance of infrastructures to modern societies (Karan & Kazdagli, 2011). Reformers have aimed to liberalize various sectors, such as air transportation, banking, ports, railroads, food service, telecommunications, and finally energy; replacing government control with free markets (Larsen, 2013). While the aim of liberalization for each sector differentiates, reforms in electricity sector aim a market structure providing benefits to the society and ensuring that an appropriate share of these benefits is transferred to consumers through lower prices and higher value (Joskow, 2008).

Liberalization of electricity markets includes the privatization of public energy assets, launching of competition through changes in the market structure, and the establishment of a sector regulatory body (Pollitt, 2011). Successful implementations should result in improvements in efficiency, quality of service, and price-cost gap adjustment, and encourage investments (Larsen, 2013). However, the pursuit of successful energy markets is still not over, as issues regarding competition are reported by many studies. Turkey has not fully liberalized its energy markets and also is getting its share of the issues.

2.1 Global Market

Discussion on the liberalization of energy markets started in the early 1980s, followed by reform commencements of several emerging and developed countries (Karan & Kazdagli, 2011). Most of these reform plans were prepared based on the methodology called the “standard textbook model”, which Chile implemented in 1982, followed by

the United Kingdom [UK] in 1990, Norway in 1991, Argentina in 1992, Sweden in 1994, and Finland in 1996 (Larsen, 2013). The standard textbook included several key components: (a) Privatization of public energy monopolies, (b) vertical unbundling of the value chain, (c) horizontal restructuring of the generation (d) creating a single independent system operator, (e) the establishment of spot energy markets, (f) the development of active “demand-side” institutions, (g) the application of regulatory rules, (h) implementation of supplier of last resort structure, (i) the creation of independent regulatory bodies, and (j) transition mechanisms (Joskow, 2008).

Positive results are obtained in Nordic countries, the UK, Chile, and other Latin-American countries by the implementation of the textbook model (Larsen, 2013). While an overview of the electricity sector liberalization in Nordic countries and the UK is conducted in European Market section of this study, non-EU country cases are described in this section.

In 1982 Chile introduced world’s first electricity sector liberalization and the application of standard textbook model, which had been run by an integrated public sector utility (Hall et al., 2009; Rabindra & Tooraj, 2013). After significant issues experienced mostly due to unhealthy market concentration at the generation side, Chilean government intervened and increased its strategic role; and as of 2010, the Chilean power sector was comprised of 31 generation, 5 transmission, and 36 distribution companies with a privately owned majority (Erdogdu, 2010).

Argentina implemented the competitive electricity market in the 1990s, privatizing most of the generation and distribution companies and introducing a wholesale power market and retail competition except for the households (Hall et al., 2009). Argentina performed well until the country’s macroeconomic collapse that leads to investment problems in 2002 (Joskow, 2008). Recently, Argentina has been experiencing problems derived from market concentration structure of power generation companies, rapid increase in demand, and artificially subsidized residential prices; which lead to significant blackouts (The Wall Street Journal [WSJ], 2014; Bloomberg Business, 2014).

Despite having remarkable results, full retail competition could not be achieved in Chile and Argentina as well as many others (Pollitt, 2007). Kessides (2012) states that “although Chile is often identified as the country where the first electricity reforms

started, its post-reform market involved less restructuring, less competition, and more regulation” (p. 83).

Different alternatives of the textbook model have also been applied. Much of Europe, Japan, and large portions of the United States [US] have not followed the textbook model and experienced performance problems (Joskow, 2008; Pollitt, 2007).

In Japan, competition in generation, wholesale and retail sectors were launched in 1995, 1996, and 2000 respectively (IEA, 2011). Despite the steps taken towards liberalization, industrial and commercial switching rates are 2% and switching activity has decreased since mid-2006 (IEA, 2011). After the Great East Japan Earthquake and the consequent nuclear accident, the Cabinet approved the Policy on Electricity System Reform on April 2, 2013 which sets forth full retail competition to be enforced in April 2016, including the small-scale customers (Japan Ministry of Economy, Trade and Industry [METI], 2015).

In the US, new legislation fostered liberalization of the US electricity system that was composed of a mixture of vertically integrated private and public companies during the 1990s (Hall et al., 2009; IEA, 2011). After blackouts and huge price rises resulted from suppliers’ market power in California in 2000 (Hall et al., 2009) and consequent collapse of several large energy utilities, the liberalization process was dramatically damaged (Pollitt, 2007). As of 2011, customers have been permitted to choose their suppliers in 15 of 50 states (IEA, 2011) and buy electricity consumption item of the energy bill from any supplier, which would be “... responsible for billing, contract terms, bundling of other services, and the purchase of wholesale power” (Pollitt, 2007, p. 5). Since the beginning of the liberalization process, Texan consumers were exposed to billions of dollars of cost due to electricity prices higher than the US average during liberalization and their reluctance to switch electricity suppliers contributed to this fact (Texas Coalition for Affordable Power [TCAP], 2012).

Having explained the country examples briefly, it can be seen that there are cases where countries proceed slowly with the reforms or experience interruptions due to electricity system operation, economical problems, or unhealthy market concentration. The examples show that the competition in electricity supply market is very much dependent on the role and the determination of the regulatory body.

2.2 European Market

EU countries have targeted to structure an integrated liberal energy market in the long term since the 1990s (Karan & Kazdagli, 2011; Larsen, 2013). After Green Paper had been published in 1995, EC Directives were launched for the liberalization of electricity markets. First one was the Directive 96/92/EC and has significantly supported the internal market for electricity (Karan & Kazdagli, 2011). The second one, Directive 2003/54/EC was adopted in 2003 setting forth that the retail market would be fully liberalized in 2007.

While EC was the driving force behind the reform process in EU, the UK was the first European country experienced the market reform. The developments in the UK became the main driver for further developments in EU (Karan & Kazdagli, 2011). As of 2010, the liberalization level has varied throughout Europe, from a near monopoly in some countries in central, east, and south eastern parts, to highly competitive markets in the UK or Nordic countries (Staňková et al., 2010). Global liberalization development is shown in Figure 2.1, where countries are ordered by years of full liberalization.

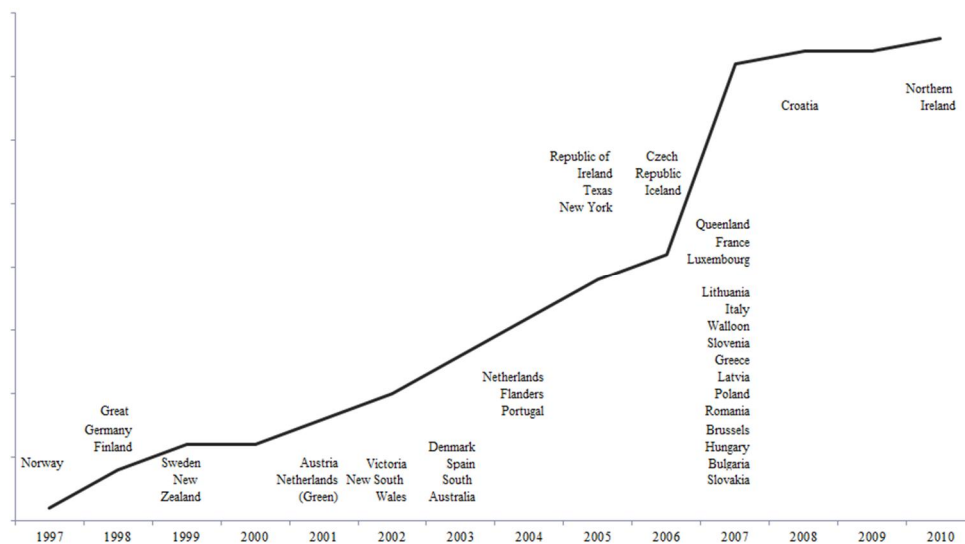


Figure 2.1 : Full electricity retail competition timeline (VaasaETT, 2012b, p. 13).

In the UK, the energy market liberalization was initiated through the 1983 Energy Act, which was followed by further reorganisation and liberalization stages (Pond, 2006). Joskow (2008) states that “... the gold standard for electricity sector reform is England and Wales” (p. 15) and adds that the reforms were based on the textbook model and

significantly improved the sector performance. The UK electricity market is fully open to competition since 1998 and all users can choose their suppliers since 1999 (London Economics, 2012). Despite “the UK was widely held to have the most competitive retail market in the world” (Littlechild, 2014, p. 1) and large savings from switching existed, the switching rates have started decreasing since 2008. As of 2013, 62% of customers were not able to recall their past switching activities; and 37% were still with their regional incumbents (Ofgem, 2013).

Norway was the first Nordic country that started liberalization of the electricity market in 1991 in line with the textbook model whereas Sweden initiated the process in 1996 (Erdogdu, 2010), which resulted in a full market liberalization for all residential customers in 1999 (London Economics, 2012). Starting with the merger of Norway and Sweden markets in 1996; Nordic countries chose to merge their markets, which resulted in the establishment of the Nord Pool (Karan & Kazdagli, 2011). The Nord Pool was enlarged with the participation of Finland in 1998 and Denmark in 1999 (Erdogdu, 2010).

As emphasized by Finon and Boroumand (2011), Nordic retail markets confront difficulties particularly in Sweden and Finland due to information transparency and industrial structures. On the other side, recent switching rates are the signs of a well performing market. As of 2012, supplier switching rate is 6.7% in Denmark, 7.7% in Finland, 9.9% in Sweden and around 13.0% in Norway (Nordic Energy Regulators [NordREG], 2013).

According to VaasaETT (2012b)’s classification of countries based on their switching activities (six categories from most competitive level to the less competitive level as Super-Hot, Hot, Warm Active, Active, Cool Active and Dormant), 8 EU countries are dormant, 3 EU countries are cool active, 8 EU countries are active, 3 EU countries are warm active, and 2 EU countries are hot markets; whereas Belgium is in active and warm active categories with its several regions. This picture shows that there is still a significant way to go in the pursuit of the competitive electricity markets and the retail market transition towards full competition is still ongoing (Concettini & Creti, 2013). The development of retail competition falls behind the expectations, particularly for residential and commercial consumers (Finon & Boroumand, 2011) that have relatively low switching rates showing their limited engagement (Concettini & Creti, 2013). In addition; expected

results have not been achieved in terms of price and competition, despite the EU requirements of unbundling and liberalization (Hall et al., 2009).

2.3 Turkish Market

After trying various alternatives to integrate private energy investments throughout the 1980s and 1990s in parallel with a rapidly growing economy, a fundamental reform was started (Atiyas et al., 2012) with the unbundling of the state-owned monopoly Turkish Electricity Organization, originally named as Türkiye Elektrik Kurumu [TEK], into two state companies in 1993: Turkish Electricity Company, originally named as Türkiye Elektrik A.Ş. [TEAŞ] that is responsible for generation and transmission, and Turkish Electricity Distribution Company, originally named as Türkiye Elektrik Dağıtım A.Ş. [TEDAŞ] that is responsible for distribution (Karahan & Toptas, 2013). In 2001 the Electricity Market Law [Law No 4628] was enacted. According to Law No 4628; TEAŞ was disunited into three parts: Turkish Electricity Distribution Company, originally named as Elektrik Üretim A.Ş. [EÜAŞ], Turkish Electricity Trade Company, originally named as Türkiye Elektrik Ticaret ve Taahhüt A.Ş. [TETAŞ], and Turkish Electricity Transmission Company, originally named as Türkiye Elektrik İletim A.Ş. [TEİAŞ] (Karahan & Toptas, 2013). Turkish Energy Markets Regulatory Authority, originally called Enerji Piyasaları Düzenleme Kurumu [EPDK], was also independently established (Ergun & Gokmen, 2013) “... in order to perform the regulatory and supervisory functions in the market” (EPDK, 2012, p. 11). One factor behind the enactment of Law No 4628 was the liberalization agenda of International Money Fund [IMF] and the World Bank, and another factor was the prerequisites of EU accession (Atiyas et al., 2012). Consecutively, Law No 4628 and “... the secondary legislation enacted by EPDK envisaged the transformation of the market from a single buyer model to full retail competition which is basically a bilateral contracts model supplemented by a balancing mechanism” (EPDK, 2012, p.14).

Another important milestone is the Electricity Market Reform and Strategy Paper published in March 2004, envisaging privatization of the public facilities and bringing a tariff system purely reflecting costs (Akkemik & Oğuz, 2011), which was followed by a “... massive privatization process” (EPDK, 2012, p.6). The same year, the free market rules were established by a balancing and settlement regulation called Dengeleme ve Uzlaştırma Yönetmeliği [DUY] enacted in November 2004 (EPDK,

2004). In 2009, Strategy Paper of the State Planning Organization was published aiming competition in energy markets to ensure efficiency and reflect the savings obtained to the end users (Accenture, 2012) in which the eligibility limit was foreseen to be zero by the end of 2015. In 2013, a new Electricity Market Law [Law No 6446] was announced (Official Gazette, 2013) which set forth the legal unbundling of distribution and retail operations as of December 31, 2012.

In the current structure, privatization of all of 21 distribution companies is completed (Privatization Administration [ÖİB], 2015) and they are legally unbundled from their retail operations (Turkish Competition Authority, 2015). Providing 38% of Turkey consumption as of 2012, public generation companies' share is constantly declining with the ongoing privatizations (EÜAŞ, 2013). However, there are still plants running on Build-Operate [BO] and Build-Operate-Transfer [BOT] contracts which include terms of guaranteed buying by the state until 2019 (Turkish Competition Authority, 2015), resulting in an uncompetitive price signal for the sector. Transmission facilities are conducted by the state monopoly TEİAŞ.

Despite significant steps were taken towards an unbundled competitive structure since 2001 (Camadan & Kolmek, 2013), Turkish Competition Authority (2015) has recently identified the following problems and made recommendations regarding the electricity market:

- Switching rates are low, which is especially a result of distribution companies' obstruction of switching processes in favour of their former vertically integrated supplier companies, which are also called incumbent suppliers. Switching processes should be simplified. DUY regulation amendment was announced by EMRA in 28.03.2015 (Official Gazette, 2015a) and it is expected to reduce the distribution companies' obstruction of switching processes in favour of their former vertically integrated supplier companies.
- Full unbundling should be completed as of 2016, as set forth by Law No 6446. Therefore, the asymmetric competitive power of incumbent retailers will be balanced.
- The new electricity markets operator company, originally called as Elektrik Piyasaları İşletme A. Ş. [EPIAŞ], will take over the market operation responsibility of TEİAŞ. It is expected to be active in 2016. Energy trading

facilities like intra-day market and day-ahead market will be operated by this company whose shareholders are private and public companies such as TEİAŞ with 30% share, Istanbul Stock Exchange with 30% share, and private energy companies with 40% share in total (Enerji Enstitüsü, 2015; Official Gazette, 2015b). EPİAŞ is expected to provide a more transparent market with future trading creating a healthier price signal.

- Consumer awareness should be increased so that consumers learn how they can switch and which alternatives they can switch to.
- Regulated tariffs are still in place in order to keep customers safe from the immature market conditions; however they are also a burden for the competition. A transition period must be defined and implemented.
- Eligibility limit is still not zero; it is recently announced as 4,000 kWh / year by EPDK in January 2015. This excludes almost every household from the competitive market. The limit is expected to be zero as of 2016.
- The theoretical market opening ratio reached 90% as of 2014. However, the realized market opening ratio is below 40%. In other words, consumers that realize 90% of Turkey consumption have the right to choose a competitive tariff, yet less than half of them choose to do so.

Briefly, Turkey electricity supply market has made a significant development since the early 2000s, yet there are still problems regarding competition and customer mobility. 2016 will be a turning point in the sector provided that the full unbundling is in place, the eligibility limit is zero, regulatory tariff is obsolete, EPİAŞ is actively working, and results of DUY amendment are being gained. Impacts of these developments are expected to support a more competitive environment with higher consumer awareness to evolve, producing better offers and higher amounts of customer mobility. On the eve of this new era for Turkish electricity market, it is important to understand the reasons of low market activity from the point of consumers' perceptions so that regulatory body and the companies can act accordingly, which will speed up the liberalization process.

3. THEORETICAL BACKGROUND

In this section, literature research is conducted on migration theory and services marketing. The switching concept is examined deeper; firstly in the services sector, secondly in the electricity supply sector. Before making a resolution to the research model, migration literature and PPM framework in migration theory are examined in detail. Finally, switching models based on PPM framework in migration theory are studied and supported by the findings identified in the literature research.

3.1 Service Switching

Because “services have unique characteristics that distinguish them from goods” (Gremler & Brown, 1996, p. 174), and electricity supply is a service business like telecommunication and banking; services marketing literature is examined in this study. Service business is not composed of discrete purchases but a continuous relationship, which one decides to be in only once at the beginning until an incident comes up and puts switching in his/her agenda (Jones & Sasser, 1995), especially when it comes to electricity supply business. As a result, relationship is an important concept for services marketing.

Marketing discipline started focusing on relationship and how it’s related with loyalty in the 1990s (Gremler & Brown, 1996), and service switching behaviour had been brought into focus (Bansal, 1997). A variety of studies with a variety of techniques has been conducted since then. A summary of the identified studies is shown in Tables A.1 to A.20.

In general, satisfaction has been one of the earliest and most attractive switching factors in the literature, whereas “... there are clearly other variables relevant to this relationship” (Jones, 1998, p.3). Service quality, switching costs, trust, price, social bonds, and value are some examples that have also been studied intensely as determinants of switching under a variety of names.

When investigated through the early times of the switching literature, econometric studies can be identified, not investigating the consumer switching behaviour individually but market competition and market switching at a macro level. Klemperer (1986, 1995) conducted two econometric studies investigating the effects of switching costs on market competition.

In terms of micro level switching studies; Cronin and Taylor (1992) investigated the relationship between purchase intentions, satisfaction, and service quality gathering data from 660 personal interviews. Rust and Zahorik (1993) studied the impacts of satisfaction on retail banking customers' loyalty.

Complex models began to appear with late 1990s. Keaveney (1995) conducted an incident-based study to identify the determinants of switching using Critical Incident Technique [CIT]. Unlike other studies focusing on a few factors in the early 1990s, Keaveney identified a variety of factors for service switching such as pricing, inconvenience, core service failure, service encounter failures, response in service failure, competition, ethical problems, and involuntary switching. Jones and Sasser (1995) conducted a survey in five different sectors including service sectors to identify the effects of satisfaction and switching costs on loyalty, finding out that not only satisfaction but the level of satisfaction drives switching behaviour, its strength depending on the type of the sectors.

Zeithaml et al. (1996a) revealed service quality as an antecedent of switching intention in both B2B and business to consumer [B2C] settings. In the same year, Gremler and Brown (1996) identified interpersonal bonds as an antecedent of loyalty; alongside satisfaction and switching costs, in their qualitative study.

Bansal (1997) conducted a Ph.D. study proposing a Service Switching Model [SSM] based on Keaveney (1995)'s work and related studies from economics, psychology, and marketing. Next, Bansal published an article with Taylor based on the SSM model and renamed the model as "The Service Provider Switching Model [SPSM]" this time (Bansal & Taylor, 1999).

Roos (1999) developed Switching Path Analysis Technique [SPAT] based on CIT aiming to study switching as a dynamic phenomenon, as opposite to CIT. Despite the study was conducted in the retail sector, the dynamic approach and classification of factors under three dimensions "Pulling, Pushing, and Mooring" is important.

Bansal continued to propose new models for service switching, this time with Taylor and James (Bansal et al., 2005). They adapted PPM model from the migration theory for services marketing, using the similarities between migration and service switching, which constitutes the foundation of this study.

Tables A.1 to A.20 show the constructs found in the literature to represent loyalty or similar concepts (switching attitude, switching intention, switching decision, switching behaviour, behavioral intention, loyalty, repurchase intentions, anticipated future interaction, repurchase behaviour, intention to stay, retention, reasons to stay, and churn) and its antecedents. Similar constructs with different names are grouped in the same factor names. Those constructs are also mapped to PPM factor groups where appropriate.

Due to the similarities between SMEs and individuals, we believe that the integration of migration theory with switching can enhance our knowledge on the topic. The table indicates that the factors such as social bonds, image, segment focus, influential triggers, involuntary switching and communication are also important and examined by other researchers (Table 3.1). For this reason, these factors are studied from the migration theory perspective in detail. After that, selected ones are integrated with the research model in order to have an extensive and comprehensive model for electricity supply services.

Table 3.1 : Frequency of different switching factors found in the literature as antecedents of different switching-related variables¹.

		Switching attitude	Switching intention	Switching decision	Switching behaviour	Behavioral intention	Loyalty	Repurchase intentions	Anticipated future	Repurchase behavior	Intention to stay	Retention	Reasons to stay	Churn
push	(low) service quality	-	-	-	-	-	-	-	-	-	-	-	-	-
	(low) satisfaction	-	-	-	-	-	-	-	-	-	-	-	-	-
	(low) value	-	-	-	-	-	-	-	-	-	-	-	-	-
	(low) trust	-	-	-	-	-	-	-	-	-	-	-	-	-
	(low) commitment	-	-	-	-	-	-	-	-	-	-	-	-	-
	(high) price perceptions	-	-	-	-	-	-	-	-	-	-	-	-	-
	(unfavorable) attitude towards switching	-	-	-	-	-	-	-	-	-	-	-	-	-
mooring	(unfavorable) subjective norms	-	-	-	-	-	-	-	-	-	-	-	-	-
	(high) switching costs	-	-	-	-	-	-	-	-	-	-	-	-	-
	(infrequent) prior switching behaviour	-	-	-	-	-	-	-	-	-	-	-	-	-
	(low) variety seeking	-	-	-	-	-	-	-	-	-	-	-	-	-
	alternative attractiveness	-	-	-	-	-	-	-	-	-	-	-	-	-
	social bonds	-	-	-	-	-	-	-	-	-	-	-	-	-
	image	-	-	-	-	-	-	-	-	-	-	-	-	-
additional constructs	segment focus	-	-	-	-	-	-	-	-	-	-	-	-	-
	influential triggers	-	-	-	-	-	-	-	-	-	-	-	-	-
other	involuntary switching	-	-	-	-	-	-	-	-	-	-	-	-	-
	communication	-	-	-	-	-	-	-	-	-	-	-	-	-

		Switching (Merged total)
push	(low) service quality	-
	(low) satisfaction	-
	(low) value	-
	(low) trust	-
	(low) commitment	-
	(high) price perceptions	-
	(unfavorable) attitude towards switching	-
mooring	(unfavorable) subjective norms	-
	(high) switching costs	-
	(infrequent) prior switching behaviour	-
	(low) variety seeking	-
	alternative attractiveness	-
	social bonds	-
	image	-
additional constructs	segment focus	-
	influential triggers	-
other	involuntary switching	-
	communication	-

¹ Prepared by the researcher

3.2 Electricity Supplier Switching

It is important to make the necessary presuppositions regarding what exactly the switching activity is in the electricity supply sector because there are cases when an activity, from different angles, may both look like switching or staying. To overcome this issue, Lewis (2006) conducted a study for the Finnish Energy Market Authority and ERGEG. The study defines switching activity as “the number of switches in a given period of time” (p. 13) and states that it can be measured based on three different approaches: the Supply Point Approach; the Customer Approach and the Energy Volume Approach.

In the supply point approach, data collected is the total volume of supply point switches (as a % of market supply points) over a given period. Because this approach ignores the customer and focuses on the meters regardless of their owners, it will not be taken into consideration for this research.

In the energy volume approach, data collected is the total volume of energy switched (as a % of the energy supplied in the market) over a given period. This approach measures the significance of the consumption involved in switching, which is a kind of weighing the number of switches by consumption amounts, yet the market activity is ignored.

In the customer approach, data collected is the total volume of customer switches (as a % of customers in the market) over a given period of time; which is suitable for the purpose of this study that aims to understand the “motivations and experiences related to customer switching” (Lewis, 2006, p. 10).

The real issue of defining switching arises when a customer moves house. Lewis (2006) reveals that if a customer “... (1) remains with the current supplier or (2) switches to the default supplier in the new location ...” (p. 9), this is not a switching activity. The author adds; “In both cases it can be stated that the customer took the simplest route” (p. 9) thus the activity is not evaluated as switching.

EC Directorate - General for Health & Consumers (2010) also defines the activity as a non-switch if the customer chooses the supplier selected by the previous occupant of the property, even it is different from the customer’s previous supplier or it is not an incumbent supplier of the previous occupant’s region. To overcome this complexity,

the report completely excludes customers who switch due to moving to another location.

While “the simplest route” differs among countries, the simplest route while moving to another location in Turkey is the combination of the three: switching to the incumbent of the related region, staying with the current supplier, or switching to the previous occupant’s supplier while moving. Thus, those activities should not be taken into account as a switching activity in this study. Finally, as explained in VaasaETT (2012b), tariff changes in the same supplier, even it is a switch from the regulated tariff to a non-regulated tariff, will not be counted as a switch.

Table 3.2 and 3.3 show different switch / non-switch scenarios based on current supplier / region and previous occupant’s supplier / region. As seen in the mentioned tables, defining “whether an activity is a switching or not” is very complex if it happens as a result of moving to another location. For this reason, collecting this information via surveys will lead to complexity and inefficiency. Therefore, any potential switching activity due to moving to another location is ignored in this study.

Table 3.2 : Choices counted as “non-switch” based on current supplier and supplier of the target location (previous occupant)^{2 3}.

		Supplier of the target location (previous occupant)							
		moved within Region A				moved to Region B			
		incumbent A	incumbent B	supplier 1	supplier 2	incumbent A	incumbent B	supplier 1	supplier 2
Current supplier	incumbent A	incumbent A	incumbent A, incumbent B	incumbent A, supplier 1	incumbent A, supplier 2	incumbent A, incumbent B	incumbent A, incumbent B	incumbent A, incumbent B, supplier 1	incumbent A, incumbent B, supplier 2
	supplier 1	incumbent A, supplier 1	incumbent A, incumbent B, supplier 1	incumbent A, supplier 1	incumbent A, supplier 1, supplier 2	incumbent A, incumbent B, supplier 1	incumbent B, supplier 1	incumbent B, supplier 1	incumbent B, supplier 1, supplier 2

Table 3.3 : Choices counted as “switch” based on current supplier and supplier of the target location (previous occupant)⁴.

		Supplier of the target location (previous occupant)							
		moved within Region A				moved to region B			
		incumbent A	incumbent B	supplier 1	supplier 2	incumbent A	incumbent B	supplier 1	supplier 2
Current supplier	incumbent A	incumbent B, supplier 2	supplier 1, supplier 2	incumbent B, supplier 2	incumbent B, supplier 1	supplier 1, supplier 2	supplier 1, supplier 2	supplier 2	supplier 1
	supplier 1	incumbent B, supplier 2	supplier 2	incumbent B, supplier 2	incumbent B	supplier 2	incumbent A, supplier 2	incumbent A, supplier 2	incumbent A

² Incumbents and other suppliers can sell to all regions. Incumbents have the largest market shares in their regions due to historical reasons explained in Section 2.1.

³ Prepared by the researcher

⁴ Prepared by the researcher

3.3 Migration Theory

3.3.1 The scope and definition

Migration theory starts with Ernst Ravenstein's "Laws of Migration" report published in Journal of the Statistical Society of London Society in 1885. Lee (1966) classifies Ravenstein's laws in seven items: Migration and distance, migration by stages, stream and counterstream, urban-rural differences in propensity to migrate, predominance of females among short-distance migrants, technology and migration, and dominance of the economic. The theory, after almost one and a half century, still lacks a "migration definition" that is agreed upon since Ravenstein's study, which doesn't include a clear definition. Moon (1995) adds another dimension to this issue by stating that "within the migration literature there is little discussion, and no agreement, as to the distance a person must travel when relocating residence before qualifying as a 'migrant'" (p. 505).

The literature consists of various definitions of migration. Dyen (1956) indicates that migration theory "... deals with the inferences of population movements and their directions" (p. 611). This statement refers migration as population movements, as stated in many other studies. Lee (1966) states that the distance and the difficulty do not matter for a definition; "... every act of migration involves an origin, a destination, and an intervening set of obstacles" (p. 49). Du Toit (1990) has a very simple definition to migration that also excludes the significance of distance as stated by Lee (1966). The author defines migration as "a movement in space". The point is that; any move, from crossing the street to moving to another country, has similar attributes such as change and changes in the interaction. Du Toit (1990) then concludes to a more specific definition: "Migration is the movement of intelligent human beings who have evaluated their condition and opted for a change that they feel will improve matters" (p. 317). Lee (1966) defines migration with a simpler statement: "... a relatively permanent change of usual residence".

It can be concluded that a migration involves location displacement of the migrant for a reason (achieving better conditions), encountering a level of obstacles during the process. This conception resembles service switching in every sense when the migration terms are replaced with service switching terms: "service switching involves

service provider displacement of the customer for achieving better conditions, encountering a level of obstacles during the switching process.”

3.3.2 Different approaches in the literature on migration theory

While a mutually agreed definition hasn't been in place yet, one single robust theoretical framework that migration researchers agree on does not exist either. Richmond (1988) states that “sociologists are still a long way from being able to explain all aspects of international migration within a single theoretical framework” (p. 23). The reason for this might be that the migration research requires many disciplinary perspectives such as economics, sociology, geography, anthropology, and psychology (Greenwood et al., 1991). Moon (1995) explains this fact as below:

...Geographers, for example, have sought to understand the spatial consequences of migration, while economists have viewed migration as a normal opportunistic response to market forces. Similarly, anthropologists and sociologists have looked to migration for indications of change to cultural and/or social functioning, while psychologists have delved into the issues surrounding the migrant's experiences so as to provide additional meaning to the migratory process. Unfortunately, far from focusing the issue, the subject of migration has become increasingly differentiated as each discipline pursues its own goals. (p. 505)

Different approaches exist in migration research such as voluntary versus involuntary, equilibrium versus disequilibrium, and micro versus macro.

Richmond (1988) puts forward that the distinction between 'voluntary' and 'involuntary' is misleading because human behaviour is constrained in nature due to limited choices and different degrees of freedom. As a result, any migration involves constraints and can be classified as involuntary.

In the equilibrium versus disequilibrium approach; the labour-flow model is utilized where migration is viewed as the labour's response to market disequilibrium. Simply, migration stops when wage rates are equalized across locations (Shields & Shields, 1989). The approach clearly assumes equilibrium of equal desirability across areas (Greenwood et al., 1991). Adding the cost of migration to the equation, it can be said that; “at equilibrium, the international wage gap exactly equals the cost of migration between the countries (including psychic costs), and net migration ceases” (Massey et al., 1994, p. 701). This model, referred as net migration model by Greenwood et al. (1991), “focuses attention on the equilibrium seeking tendency of the population system. The gross migration model, in contrast, centers on the individual migrant's

choice process; as such it attempts to identify directly the determinants of migratory behaviour” (p. 241).

When macro and micro dichotomy is considered, it is concluded that the macro level mostly deals with migration streams, while the micro level focuses mostly on behaviours from a sociopsychological angle and on individual level, including theories of motivation, decision making, satisfaction, and identification (Richmond, 1988). A philosophical schism is mentioned between macro and micro level research which derives from the measurable characteristics of the socioeconomic and physical environments in macro level studies and decision-making process focused in micro level studies (Moon, 1995).

The study of Sell and De Jong (1978) is one of the examples that developed a motivational approach to migration decision making. In the study, approaches to migration decision making are classified as;

- The Human Capital Approach to Migration Decision Making; which mostly leaves out non-monetary factors,
- The Place Utility Approach to Migration Decision Making; which leaves out the fact that the determinants of the decision to migrate may be different from the determinants of the where-to move decision,
- Sociological Aspects of Migration Decision Making; which includes studies on factors that have an effect on individuals and their migration decision process.

Moon (1995) classifies migration literature from three perspectives of the social organization: Social, personal, and cultural. According to Moon (1995), personal perspective includes four main streams: (1) behaviorism, (2) the cognitive impact that aims to fill the gaps of behaviorism, (3) theories of motivation that aim to fill the gaps of cognitive impact, and (4) observation.

This research aims to make an analogy between switching literature and migration theory and to reveal the determinants of service switching for electricity supply services. Thus, the focus is on the individual and behavioral level of migration.

3.3.3 Behavioral approach and determinants of migration

Determinants of migration have been studied for over 100 years (Stimson & Minnery, 1998), in a wide range including “... wage differentials, job opportunities,

unemployment rates, the provision of local public services, and location-specific amenities (Greenwood et al., 1991, p. 239)". The determinants are based on the characteristic of the migrant or the attribute of the location (Clark et al., 1996), including social, economic, cultural, political, institutional, psychological, and physical considerations together (Stimson & Minnery, 1998).

Greenwood et al. (1991) classify the questions, to which migration research on determinants and consequences aims to find answers, within 5 topics: (1) Who migrates? (2) Why do they migrate? (3) Where are they coming from and going to? (4) When do they migrate? (5) What are the consequences?

In terms of why they (migrants) migrate, many factors contribute to the migration decision (Greenwood, 1985), and deterministic hypotheses based upon economic, climatic, aesthetic, etc. are not sufficient to explain migration behaviour yet there are many cases of reshuffling between similar environments in the history of migration (Wolpert, 1966).

A single explanative model to explain "why" doesn't still exist after more than a century since Ravenstein's study (Moon, 1995; Stimson & Minnery, 1998). Early studies lacked an integration of migration behaviour in the proposed models (Wolpert, 1966). Since the 1950s, publications on migration have been increasing, with diverse perspectives and different measurements and scales (Du Toit, 1990). Starting with the end of the World War II, micro-level migration research began to develop, and sociology and psychology have been utilized more in the studies (Moon, 1995). Few studies incorporated the reasons for migration until 1960s (Lee, 1966), the decade when migration research skyrocketed (Greenwood et al., 1991). The behavioural analysis of migrants has also risen in the same period (Walmsley et al., 1998). The focus was shifted to the household as the decision-making unit and behavioural models were developed using migrant data (Greenwood, 1985) while all economic views observed "the migrant as a labour supplier, an investor, a consumer, or a producer" (Shields & Shields, 1989, p. 299). Walmsley et al. (1998) emphasize that focus on the behavioural analysis of migration started to grow by 1960s in order to simplify the real world's complexity. As of 1970s "the vast migration literature was almost exclusively oriented towards the determinants" (Greenwood et al., 1991, p. 238).

3.4 Migration PPM Framework

The migration process has been formulated as a resultant of “push” and “pull” factors since Ravenstein (Dorigo & Tobler, 1983). Briefly; the push factors are the dissatisfying attributes of the current location and the pull factors are the attractive attributes of the potential locations (Dorigo & Tobler, 1983; Zengyan et al., 2009).

As emphasized by Du Toit (1990), Heberle (1938) distinguished push and pull factors with “an early model for what came to be known as the push-pull theory” (Du Toit, 1990, p. 305). Heberle (1938) states that “... the varying intensity of migration from the country is scarcely dependent on the variation in the strength of these push factors” (p. 933) and adds that pull factors had been neglected up to that time.

In 1960s, models have evolved having independent variables under push & pull factors (Stimson & Minnery, 1998) and migrant’s interpretation of migration factors gradually began to be included in the explanation of the determinants of migration. Clark et al. (1996) emphasizes that the microfoundations for models of migration are commonly derived from human capital models where individuals locate to maximize lifetime expected utility.

Wolpert (1966) created one of the early behavioral models of migration “based upon the response of individual decision makers to dissatisfaction in their current residence and perceived satisfaction available at alternate sites” (Fredrickson et al., 1980, p. 281).

Lee (1966) proposed the “intervening obstacles” construct for the push-pull model and located the migrant’s subjective evaluation of the push and pull factors in the centre of the migration decision. The author classified the factors as “(1) Factors associated with the area of origin, (2) Factors associated with the area of destination, (3) Intervening obstacles, and (4) Personal factors” (p.50).

Bogue (1969) also puts forward the pull-push factors (Table 3.4) however, the study did not “account well for individual migration decisions” (Bansal et al., 2005).

Brown and Moore (1970) and Speare (1974) expanded Wolpert’s model. Brown and Moore (1970) brought the households into focus as the decision making units of the migration itself because “push and pull factors can be interpreted in different ways by different decision-makers” (Walmsley et al., 1998, p. 110).

Table 3.4 : Bogue’s push and pull factors (Bogue, 1969).

Push factors	Pull factors
Decline of regional income, causing localized recession	Perceived superior career opportunities in another location
Loss of employment (from causes other than recession, e.g., mechanization)	Greater income in another place
Political, religious, ethnic, and/or other forms of oppression, or discrimination	Personal growth opportunities such as better education, group association, etc.
Little or no pathway to increase personal development in structures such as marriage, status, or career	Preferable environment, such as climate, housing, schools and/or other institutional facilities
Catastrophe. For example, floods, fire, earthquake, war, etc.	Desire to be with kin, or other favourable people, in another place
	Lure of different social or physical activities in another place

Trlin (1976) proposed a complex model that included origin, intervening obstacles, and destination; but he has expanded them into: "(a) factors associated with the area of origin; (b) factors associated with the area of destination; (c) factors that act as intervening obstacles between origin and destination; and (d) personal factors". There are also mathematical push-pull models like the one presented by Dorigo and Tobler (1983) where the magnitude of migration is defined by the combination of push and pull factors divided by the distance between locations. Later on Jackson (1986) modified the “obstacles” concept as “intervening variables” removing the term “obstacles”, since those can either help or prevent migration. Longino (1992) contributed to the push-pull model with the “mooring” variables that aim to explain why potential migrants choose to stay when sufficient push and pull factors are in place. As emphasized by Bansal et al. (2005), Moon (1995) incorporated the mooring variables into the push-pull model of migration in his study and stated that “in contrast to the functionalist notion of push/pull factors, people can express some degree of personal control over each mooring issue” (p. 514). After the mentioned studies, the resultant model of Push-Pull-Mooring (PPM) became dominant in migration literature (Zengyan et al., 2009).

3.5 Use of PPM Framework in Explaining Switching Behaviour

“The PPM and migration theories have been applied to other contexts, such as in consumer behaviour and marketing domains” (Zengyan et al., 2009, p. 2) based on the analogy between migrating to a new location and switching to a new service supplier.

Another analogy that can be revealed is that one of the economic views of migration sees the migrant as “a consumer of regional amenities such as public goods” (Shields & Shields, 1989, p. 277). This view even alters the relationship between “migrating to a new location” and “switching to a new service supplier” from being an analogy to being rather the same concept. The study of Clark et al. (1996), which utilized consumption based approach, is one of the examples to viewing the migrant as a consumer.

Twelve studies applying PPM model for switching are identified in the literature and mentioned in Section 1.3. Only one of them is not a successor of Bansal et al. (2015), but another study adapting migration PPM model to service switching; published in the same year as Bansal et al. (2005). In the study, Lui (2005) identifies constructs from IT service switching literature and fits them into migration PPM framework of Moon (1995).

Another one of the studies, Ek and Söderholm (2008) is conducted in the electricity supply sector, however the model in the study "draws on a more general model outlined in Bansal et al. (2005)" (p. 255). In other words, it does not include the original factors and is a very simplified version of the original model. In addition, it is applied for household consumers, not SMEs.

A comparative table of previous studies using dimensions of PPM in switching literature is shown on tables 3.5, 3.6, 3.7, and 3.8. There is a variety of approaches used by those studies to adapt Bansal et al. (2005)’s model:

- Utilization of the entire model
- Utilization of selected constructs of the model
- Utilization of push / pull / mooring classification yet using completely different constructs.

In this study, the entire model of Bansal et al. (2005) is covered, and additional constructs identified from migration and service switching literature are used to build and test an extended version of the model.

Table 3.5 : Previous studies on switching based on PPM framework – Sectors and brief descriptions⁵.

		Successor studies												
	Bansal et al. (2005)	Lui (2005)	Ek and Söderholm (2008)	Zhang et al. (2008)	Zengyan et al. (2009)	Listyarini et al. (2009)	Naumann et al. (2010)	Hou et al. (2011)	Ye and Potter (2011)	Fu (2011)	Chiu et al. (2011)	Lai et al. (2012)	Hsieh et al. (2012)	Zhang et al. (2012)
Sector	auto-repair and hairstyling services	IT services	electricity supply services	online blogging services	online social networking services	hairstyling services	facilities management (B2B)	online gaming	personal communication technologies	human resources in IT sector	online shopping	mobile shopping	online blogging services	online blogging services
Description	Bansal et al. (2005)'s study is the base for this study	Lui (2005) identified constructs from IT service switching literature and fitted them into PPM model of Moon (1995)	The model "draws on a more general model outlined in Bansal et al. (2005), which embraces both economic and psychological influences on switching behavior "	The study cover selected constructs of the PPM model such as satisfaction, switching costs and alternative attractiveness	The study covers selected PPM model constructs such as satisfaction, switching costs, subjective norms, and alternative attractiveness. Subjective norms factor is used as a pull factor and named as peer influence	The study covers the entire constructs of Bansal's PPM model in its conceptual model in which additional constructs are developed.	The study reveals that pull & push factors are generally the same; highly satisfied customers are affected by pull factors whereas less satisfied customers are affected by push factors.	The study uses an adaptation of the PPM model excluding some factors	A quantitative research whose aim “is to explore the role of users’ habit against the backdrop of the PPM model" (Ye & Potter, 2011, p. 586)	The study compiles investment model and PPM model to find the antecedents of career commitment of IT professionals	The study utilizes PPM Model in the multichannel customer behavior context	In the study, some of the constructs of PPM model are interchanged between groups	The study utilizes PPM Model in the information system post-adoption behavior context	One factor for each group of PPM model was identified from the prior literature

⁵ Prepared by the researcher

Table 3.6 : Previous studies on switching based on PPM framework – push factors used including new constructs⁶.

		Successor studies' conceptual PPM model constructs compared with Bansal's PPM model												
	Bansal et al. (2005)	Lui (2005)	Ek and Söderholm (2008)	Zhang et al. (2008)	Zengyan et al. (2009)	Listyarini et al. (2009)	Naumann et al. (2010)	Hou et al. (2011)	Ye and Potter (2011)	Fu (2011)	Chiu et al. (2011)	Lai et al. (2012)	Hsieh et al. (2012)	Zhang et al. (2012)
push	service quality	N/A	N/A	N/A	N/A	service quality	service performance, (poor) system characteristics	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	satisfaction	satisfaction	N/A	satisfaction	Dissatisfaction (technical quality, information quality, community support, member policy)	satisfaction	satisfaction	satisfaction	satisfaction	career satisfaction	N/A	N/A	N/A	satisfaction
	value	N/A	N/A	N/A	N/A	value	(poor) value	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	trust	N/A	confidence	N/A	N/A	trust	reputation	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	commitment	N/A	N/A	N/A	N/A	commitment	loyalty	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	price perceptions	perceived price equity	perceived cost savings	N/A	N/A	price perceptions, unfair pricing	price	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	[Developed construct(s)]	N/A	socio-economic characteristics	N/A	N/A	N/A	(poor) communication, (poor) corporate partnership	enjoyment, perception of insufficient participants	N/A	the threat of professional obsolescence	multichannel self-efficacy (internet experience, vicarious experience)	inconvenience	writing anxiety, perceptions of weak connections	N/A

⁶ Prepared by the researcher

Table 3.7 : Previous studies on switching based on PPM framework – mooring factors used including new constructs⁷.

		Successor studies' conceptual PPM model constructs mapped with Bansal's PPM model												
Bansal et al. (2005)		Lui (2005)	Ek and Söderholm (2008)	Zhang et al. (2008)	Zengyan et al. (2009)	Listyarini et al. (2009)	Naumann et al. (2010)	Hou et al. (2011)	Ye and Potter (2011)	Fu (2011)	Chiu et al. (2011)	Lai et al. (2012)	Hsieh et al. (2012)	Zhang et al. (2012)
mooring	attitude towards switching	N/A	N/A	N/A	N/A	attitude towards switching	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	subjective norms	N/A	social norms	N/A	N/A	subjective norms	N/A	N/A	subjective norm	N/A	N/A	N/A	N/A	N/A
	switching costs	perceived switching cost	perceived transaction costs	switching costs (sunk costs)	switching costs (setup, continuity)	switching costs	switching costs	switching costs	(higher) perceived switching costs	career investment	within firm lock-in switching cost	switching costs	switching costs	sunk costs
	prior switching behaviour	N/A	N/A	N/A	N/A	prior switching behaviour	N/A	successful prior switching experience	N/A	N/A	N/A	N/A	past experience	N/A
	variety seeking	N/A	N/A	N/A	N/A	variety seeking	N/A	need for variety	the habit of using the incumbent	N/A	N/A	N/A	N/A	N/A
	[Developed construct(s)]	perceived bundle value ambiguity	N/A	N/A	N/A	emotional bonding, commitment relational	N/A	social relationship	N/A	self efficacy	within firm lock-in perceived multichannel integration	trust, privacy and security	N/A	N/A

⁷ Prepared by the researcher

Table 3.8 : Previous studies on switching based on PPM framework – – pull factors used including new constructs⁸.

		Successor studies' conceptual PPM model constructs compared with Bansal's PPM model												
	Bansal et al. (2005)	Lui (2005)	Ek and Söderholm (2008)	Zhang et al. (2008)	Zengyan et al. (2009)	Listyarini et al. (2009)	Naumann et al. (2010)	Hou et al. (2011)	Ye and Potter (2011)	Fu (2011)	Chiu et al. (2011)	Lai et al. (2012)	Hsieh et al. (2012)	Zhang et al. (2012)
pull	Alternative attractiveness	perceived alternative attractiveness	N/A	attractive alternatives	the attractiveness of alternatives	alternative attractiveness	better price / value / relationship / system characteristics / reputation / communication / corporate partnership / service performance	the attractiveness of the alternative (more entertainment as the core service, free entry and better customer service)	relative advantage, perceived relative ease of use, and perceived the relative security of the alternative product	availability of career alternatives	the attractiveness of competitors' offline retail store (perceived service quality of competitors' offline store, perceived risk of purchasing online)	alternative attractiveness	relative enjoyment, relative usefulness and ease of use	attractive alternatives
	[Developed construct(s)]	N/A	N/A	N/A	peer influence	N/A	N/A	N/A	N/A	N/A	N/A	peer influence	N/A	N/A

⁸ Prepared by the researcher

3.6 Switching Model Based on PPM Framework in Migration Theory

Bansal et al. (2005)'s study is the most extensive and inclusive study that uses the analogy between migration and switching directly, and develops a switching model based on PPM framework in migration theory (Figure 3.1) by matching pull, push, and mooring factors of the migration literature with the corresponding switching factors of the service switching literature. The authors also included factors that are not found in the migration literature but identified in the service switching literature.

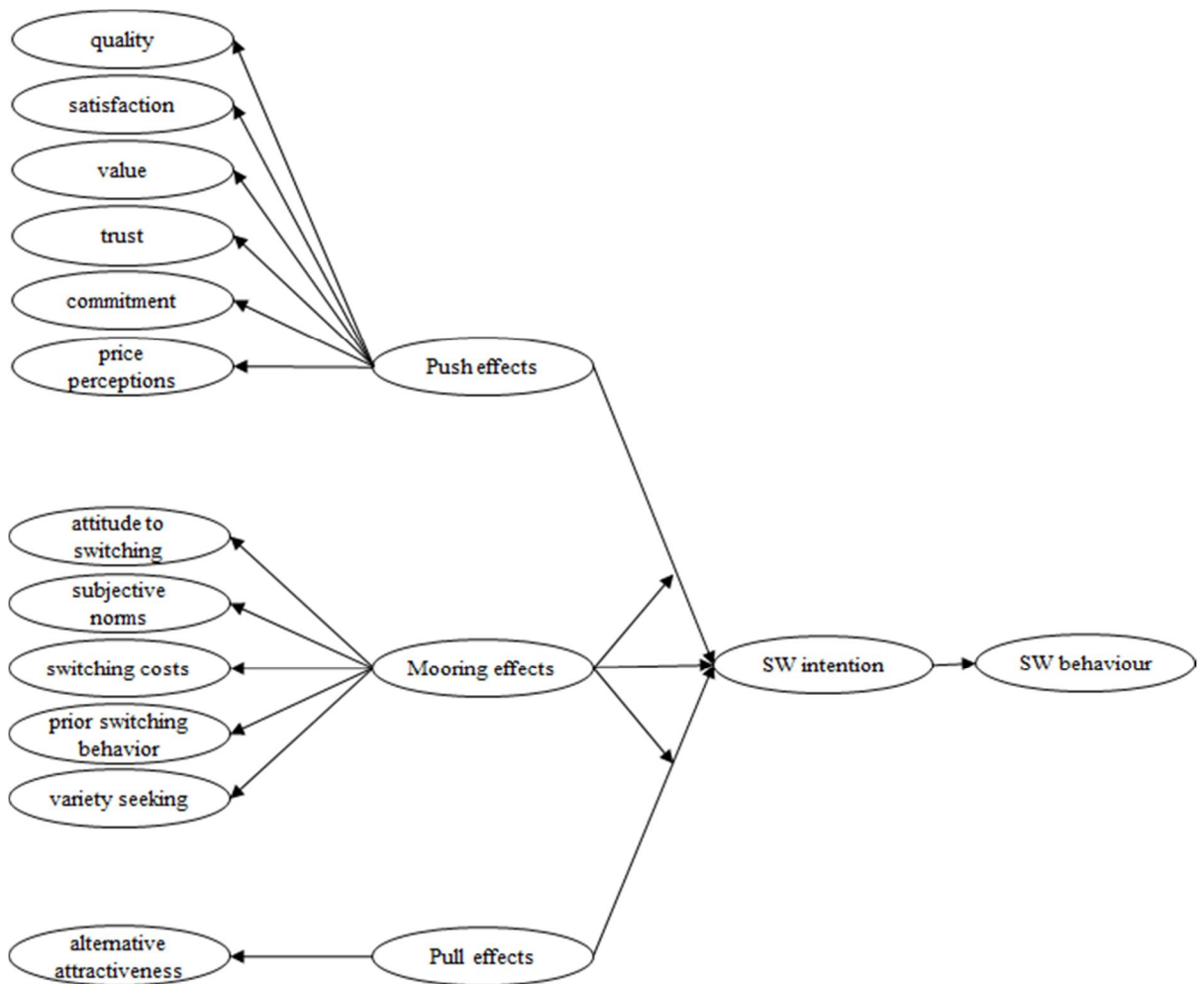


Figure 3.1 : Bansal et al. (2005)'s switching model based on PPM framework in migration theory.

This section aims to find additional support for the constructs that are not supported or have relatively weak support provided by previous studies. Hence, all the constructs are discussed based on migration and service switching literature, from an electricity supply sector perspective.

Below is a table (Table 3.9) that summarizes the migration studies that support PPM model.

Table 3.9 : Migration studies identified supporting the research model⁹.

	Research model constructs	Related migration literature
push	service quality	Brown and Moore (1970), Porell (1982), Stimson and Minnery (1998), Boyle et al. (1999)
	satisfaction	Sell and De Jong (1978), Goldstein (1977), Wolpert (1966), Brown and Moore (1970), Speare (1974), Frederickson et al. (1980), Moon (1995), Stimson and Minnery (1998)
	value	N/A
	trust	N/A
	commitment	N/A
	price perceptions	Heberle (1938), Bogue (1969), Sell and De Jong (1978), Greenwood (1985), Richmond (1988), Massey et al.(1994), Stimson and Minnery (1998)
mooring	attitude towards switching	N/A
	subjective norms	Massey et al. (1994)
	switching costs	Lee (1966), Brown and Moore (1970), Sizer and Smith (1972), Sell and De Jong (1978), Shields and Shields (1989)
	prior switching behaviour	Lee (1966), Sell and D e Jong (1978), Bell (1980), Greenwood (1985), du Toit (1990), Greenwood et al. (1991), Massey et al. (1994), Fischer and Malmberg (2001), Stimson and Minnery (1998)
	variety seeking	Sizer and Smith (1972), Greenwood et al. (1991)
pull	Alternative attractiveness	Lee (1966), Bell (1980), Dorigo and Tobler (1983), Du Toit (1990), Cadwallader (1992), Moon (1995), Walmsley et al. (1998)

3.6.1 Push factors

As explained in the previous sections, factors grouped under push construct are related to the attributes of the current location (in terms of migration theory) or the current supplier (in terms of switching literature). In this section, push factors are examined deeply in terms of how they are approached in the migration and service switching literature and whether they have sufficient literature support in terms of their influence on switching.

⁹ Prepared by the researcher

Service quality. In terms of migration literature, Bansal et al. (2005) refer to study of Boyle et al. (1999) as an example and state that "... investigations of quality of life examine variables such as physical and economic factors associated with the origin".

There are additional studies found in the migration literature that supports quality factor. The quality of life is a common factor referred in migration studies directly or indirectly. Brown and Moore (1970) include quality in one of the five topics listed as the influencers of selecting new residence: "services and facilities: the quality of public utility services, schools, police and fire protection, and home delivery services" (p. 5). Porell (1982) discusses the quality of life and intermetropolitan migration. Stimson and Minnery (1998) indirectly refer to quality, including referring to concepts such as "strong negative attributes tended to relate to congestion, lack of facilities and general dislike of the area" (p. 202-203). Moon (1995) also defines push factors as factors having a negative influence on the quality indicators of life.

Bansal et al. (2005) also include studies from the switching literature that support their model. Yet, there are additional studies found in the scope of this study. Table A.1. shows a detailed list of related studies referring quality as a factor influencing switching and the dependent / independent variables used in the marketing literature. De Ruyter et al. (1998), Mittal and Lassar (1998), Bloemer et al. (1999), Aydin et al. (2005), Lewis and Soureli (2006), Lam and Burton (2006), and Caceres and Paparoidamis (2007) approach quality as an antecedent of loyalty; Bansal (1997) and Bansal and Taylor (1999) approach it as an antecedent of switching attitude; Antón et al. (2007), Babu (2014), and Zeithaml et al. (1996a) approach it as an antecedent of switching intention, Kim (2008) approaches it as an antecedent of switching decision, Clemes et al. (2010) and Pirzada et al. (2014) approach it as an antecedent of switching behaviour; Cronin and Taylor (1992) approach it as an antecedent of repurchase intentions; and finally Lam et al. (2009) approach it as an antecedent of intention to stay. Other studies name the construct differently but have similar measures for it: Kim (2008) studies product quality as an antecedent of switching decision; Rauyruen and Miller (2007) study service quality as one of the measures of relationship quality and an antecedent of loyalty; Hennig-Thurau et al. (2001) study quality of teaching as an antecedent of switching decision in the education sector; and Kim and Yoon (2004) studies call quality as an antecedent of switching decision in the telecommunications sector.

Service failure, service recovery, the breadth of services, and convenience are also dimensions of service quality and examined in many studies as well. Table A.2, A.3, A.4, and A.5 show lists of related studies in the marketing literature and the dependent / independent factors used.

Looking from the energy sector point of view, service quality components depend on how regulations define electricity suppliers' field of activity. In most of the liberalized energy markets, electricity supply companies are not responsible for;

- Quality / reliability of supply (voltage regulation),
- Power cuts,
- Meter installations
- Line investments
- Connections and disconnections
- Technical assistance (repairs, connections, etc.)

In other words, electricity suppliers have limited right to speak about the overall architecture of the electricity system (Defeuilley, 2009). However; the awareness is very low among customers and their perception is different, which is a fact supported by focus groups conducted in the scope of this study and are discussed in the following sections. Thus; some of the technical aspects of the service quality concept are not entirely excluded.

As value added services is an important part of service quality and a factor influencing switching in the telecom sector (Makwana et al., 2014); innovative services in energy sector could also be considered as a part of service quality. Despite "... innovation may become more important in future" (Frontier Economics, 2011, p.10) in the electricity supply sector, previous experience of new channels (sales over the Internet) and joint offers (dual fuel, bundled products with the internet or call services) in the sector were not very successful (Defeuilley, 2009). Therefore this dimension may have a neutral effect in switching decisions. It may even not exist in a relatively less competitive environment.

Satisfaction. Many studies such as Sell and De Jong (1978), Goldstein (1977), Wolpert (1966), Brown and Moore (1970), Speare (1974), Frederickson et al. (1980),

and Stimson and Minnery (1998) approach satisfaction as a significant factor influencing the migration decision.

It is also studied by many academicians in marketing literature and is the earliest factor that is approached as a determinant of switching by many researchers. Table A.6. shows a detailed list of studies and the dependent / independent variables used. Rust and Zahorik (1993), Jones and Sasser (1995), Gremler and Brown (1996), Mittal and Lassar (1998), Oliver (1999), Gerpott et al. (2001), Beerli et al. (2004), Buttle and Burton (2002), Hennig-Thurau et al. (2001), Ball et al. (2004), Kim et al. (2004), Aydin et al. (2005), Lewis and Soureli (2006), Eshghi et al. (2007), Li and Petrick (2008), Lai et al. (2009), Ibáñez et al. (2006), Hartmann and Ibáñez (2007), Stank et al. (1998), and Lam et al. (2004) present satisfaction as an antecedent of loyalty. However, Bansal (1997), Bansal and Taylor (1999), and Walsh et al. (2005, 2006) approach the satisfaction as an antecedent of switching intention; Keaveney and Parthasarathy (2001) and Kim and Yoon (2004) as an antecedent of switching behaviour; Cronin et al. (2000) as an antecedent of behavioral intention, Cronin and Taylor (1992), Jones (1998), Patterson and Spreng (1997), and Paulssen and Birk (2007) as an antecedent of repurchase intentions, Molinari et al. (2008), as an antecedent of repurchase behaviour, and finally Ranaweera and Prabhu (2003) and Gustafsson et al. (2005) as an antecedent of retention. In addition, Rauyruen and Miller (2007) studied satisfaction as one of the measures of relationship quality and Caceres and Paparoidamis (2007) approached it as “relationship satisfaction”.

There is an ongoing debate whether satisfaction provides customer loyalty or not. It is widely discussed that customer satisfaction factor is necessary but insufficient alone to predict customer loyalty (Ibanez et al., 2006). Jones and Sasser (1995), Bloemer et al. (1999), and Naumann et al. (2010) articulate similar conclusions as well. Jones and Sasser (1995) state that merely satisfied customers are six times less likely to buy again than totally satisfied customers, meaning that some level of satisfaction is not adequate; full satisfaction should be pursued for customer retention. Mittal and Lassar (1998) also identified that “... disloyalty was conspicuous even among the satisfied customers” (p. 186). The necessary satisfaction level can depend on the sector. Jones and Sasser (1995) reveal that relatively less satisfaction is enough for providing loyalty in the telecommunications sector compared to other sectors. Eshghi et al. (2007) state that satisfaction is a strong determinant of customers' propensity to switch wireless

telecom service providers, giving no additional information about the impact of the satisfaction level.

Satisfaction and service quality concepts can be over-resembled in the literature. A good example is the statement articulated by Zeithaml (1996b): “The main factor determining customer satisfaction is the customers’ own perceptions of service quality”, which almost equalize the two concepts. Customer satisfaction is approached as “... the result of a customer’s perception of the value received... where value equals perceived service quality relative to price...” (Cronin et al., 2000, p. 195). The difference between satisfaction and service quality can be stated as follows: while satisfaction “is a rating of customer’s experience with the service outcome” (Mittal and Lassar, 1998, p. 178), service quality is “a judgment made about a firm’s resources and skills” (Mittal & Lassar, 1998, p. 178-179).

In the utilities sector, satisfaction is identified as a switching factor as well (Walsh et al., 2005). There are a number of studies that show the impact of customer satisfaction on residential customers’ loyalty (Ibanez et al., 2006), which is significant in the energy market (Walsh et al., 2006).

Accenture (2013) emphasizes different levels of satisfaction and their impacts on switching in utilities sector: “while small and medium businesses (SMBs) tend to be more satisfied with their energy providers than residential consumers, SMBs are also more than twice as likely to consider switching providers” (p.191). Walsh et al. (2005) have similar findings revealing that satisfied customers may have intentions to switch their providers. Naumann et al. (2010) also mention the same issue saying, “customer satisfaction is less influential in explaining loyalty in B2B than previously believed” (p. 892).

Value. Although value is also an important construct of the model suggested by Bansal et al. (2005), the authors do not refer to any of the migration studies regarding value. No migration studies that include the value as a migration factor is found in the scope of this study as well.

In addition to service switching studies identified in previous studies, following studies are found in the literature: Buttle and Burton (2002), Sirdeshmukh et al. (2002), Chiu et al. (2005), Lewis and Soureli (2006), Lai et al. (2009), and Lam et al. (2004) studied value as an antecedent of loyalty, whereas Cronin et al. (2000) as an antecedent of

behavioral intention, Patterson and Spreng (1997) as an antecedent of repurchase intentions, and Molinari et al. (2008) as an antecedent of repurchase behaviour. Table A.7 shows the list of mentioned studies in the marketing literature and the dependent / independent variables used.

Misconceptions or conflicting areas between value and quality and/or value and satisfaction can become evident due to the concept resemblance (Cronin et al., 2000). Zeithaml (1988)'s conception of value is "the trade-off between quality and sacrifice" (Bansal et al., 2005, p. 100). Lam et al. (2004) also mentions a similar conceptualization of value as the comparison of weighted benefits and sacrifices; which is articulated by Buzzell and Gale (1987) as "a ratio or trade-off of total benefits received to total sacrifices" (p. 295). This definition replaces quality with benefits, thus it is clearer. Similarly, Patterson and Spreng (1997) define value as "a ratio or trade-off of total benefits received to total sacrifices" (p.417).

Trust. Bansal et al. (2005) refer to Richmond's (1988) study stating, "in migration research, a person's trust in his or her relations with others represents a push factor" (p. 100).

Trust, in addition to previous studies' findings, has been approached in the marketing literature with various constructs (Table A.8) such as;

- "trust" as an antecedent of loyalty by Sirdeshmukh et al. (2002), Ball et al. (2004), Aydin and Özer (2004), Aydin et al. (2005), Lewis and Soureli (2006), Ibáñez et al. (2006), and Caceres and Paparoidamis (2007) and as an antecedent of retention by Ranaweera and Prabhu (2003)
- "trust" as one of the measures of relationship quality and as an antecedent of loyalty by Hennig-Thurau et al. (2001) and Rauyruen & Miller (2007)
- "trust of supplier" as an antecedent of anticipated future interaction by Doney and Cannon (1997)
- "trust of salesperson" as an antecedent of anticipated future interaction by Doney and Cannon (1997)
- "brand trust" as an antecedent of loyalty by Hartmann and Ibanez (2007)
- "confidence" as an antecedent of reasons to stay Colgate et al. (2007)
- "confidence benefits" as an antecedent of loyalty by Hennig-Thurau et al. (2001)

- “reputation” as an antecedent of switching behaviour by Clemes et al. (2010)
- “ethical problems” as an antecedent of switching behaviour by Keaveney (1995)

Anderson and Narus (1990) define trust as “trust occurs when one party believes that the other party’s actions would result in positive outcomes for itself”. According to Barry (2004), trust is a belief, attitude or expectation that the supplier will behave according to the buyer’s own benefit. Briefly, it is the customer belief that “the firm will deliver expected benefits for the long run” (Lee and Murphy, 2005, p. 198).

In B2B context, trust can be approached using two components, performance / credibility trust and benevolence trust (Ball et al., 2004). Ganesan (1994)’s study did not support benevolence trust as the companies may rely more on performance. On the other hand, small businesses may be expected to behave more like individuals, having less maturity in procurement processes and B2B relationships.

When examining from the point of electricity supply market; trust is generally accepted as an antecedent of energy supplier loyalty (Ibanez et al., 2006, p. 638). Brand trust should be improved via service integrity and brand communications to build loyalty (Hartmann and Ibanez, 2007). In Australia, 55% of the customers are willing to pay more for premium products from a trusted supplier (EY, 2014). However, there is an interesting phenomenon in the sector: “consumers don’t trust their energy suppliers at all whereas energy suppliers believe consumers view them positively” EY (2011b). This situation might have lead to trust-insensitivity for switching as customers may think that they wouldn’t be able to find a trusted electricity supplier when they decide to switch; which in turn may invalidate the effort to build brand trust.

Commitment. According to Sharma and Patterson (2000), commitment is the belief that an ongoing relationship is worth investing in. Commitment is a forward looking factor whereas satisfaction is a backward looking concept (Gustafsson et al., 2005).

There are a number of studies that reveal commitment as an antecedent of switching (Table A.9):

- Antón et al. (2007) reveal commitment as an antecedent of switching intention
- Hennig-Thurau et al. (2001) and Caceres and Paparoidamis (2007) reveal commitment as an antecedent of loyalty
- Gustafsson et al. (2005) reveal commitment as an antecedent of retention

- Hennig-Thurau et al. (2001) reveals emotional commitment as a measure of relationship quality and an antecedent of loyalty
- Rauyruen and Miller (2007) reveal commitment as a measure of relationship quality and an antecedent of loyalty

In the literature, there are several studies where loyalty and commitment concepts interfere with each other. This can be clearly observed in Oliver (1999)'s definition of loyalty: "Customer loyalty is a buyer's overall attachment or deep commitment to a product, service, brand, or organization". As another example; the attitudinal approach of loyalty (unlike behavioural loyalty), states that a loyal customer is attached to a brand (Lam & Burton, 2006). Likewise, affective commitment (unlike calculative commitment) refers to an emotional bond (Lewis and Soureli, 2006). Therefore, commitment items should be developed in a way that they can differentiate themselves from loyalty.

Price. An analogy can be easily drawn between economic factors in migration literature and price in the service literature. Bogue (1969) emphasizes the importance of economic variables in migration models. Wage difference between locations and unemployment are widely used factors in especially economic view of migration studies. Heberle (1938), Sell and De Jong (1978), Greenwood (1985), Richmond (1988), Massey et al. (1994), and Stimson and Minnery (1998) are few of many examples that included wage and unemployment as factors of migration in their studies.

In the marketing literature, there are a number of studies that reveal price as an antecedent of switching (Table A.10):

- Keaveney (1995), Gerrard and Cunningham (2004), Makwana et al. (2014) reveal pricing as an antecedent of switching behaviour
- Antón et al. (2007) reveal price changes as an antecedent of switching intention
- Kim (2008) reveals price as an antecedent of switching decision
- Roos (1999), Thomas et al. (2004), and Clemes et al. (2010) reveal price as an antecedent of switching behaviour
- Naumann et al. (2010) reveal price as an antecedent of loyalty

- Colgate and Hedge (2001) reveal pricing problems as an antecedent of switching behaviour
- Gamble et al. (2009) reveal expected economic benefits as an antecedent of switching attitude
- Abdelrahmann (2011) and Pirzada et al. (2014) reveal interest rate (banking sector) as an antecedent of switching behaviour
- Gerpott et al. (2001) reveal service price as an antecedent of retention

In this study, the price perception of the customers will be the focal point as the customer perceptions can be different from the reality itself. In the utilities sector, customers can think that they are on the cheapest tariff even if the reality is completely different: “European customers do not fully take advantage of savings opportunities that occur with switching. European households could have saved 9% on their electricity bills and 13% on their natural gas bills by switching supplier in 2011” VaasaETT (2012a, p.3).

Pakkanen and Narva (2011) state that electricity customers may not switch due to low savings perceptions. On the other hand, London Electricity had lost 30% of its sales within a year to the competition offering better prices shortly after restructuring (Payne & Frow, 1997). Another similar example is Australia; where 1 in 8 electricity consumers missed a payment because they couldn't afford it (EY, 2014) which indicates that price is important for a significant portion of the consumers. Thus, it is important to understand the price sensitivity of related customer segments and the reasons behind it.

3.6.2 Mooring factors

As explained in the previous sections, factors grouped under mooring construct are related to why potential migrants or switchers choose not to do so when sufficient push and pull factors are present. Mooring factors, each of which people can control to an extent, are examined deeply in terms of how they are approached in the migration and service switching literature and whether they have sufficient literature support in terms of their influence on switching.

Attitude towards switching. Desbarats (1983)'s study is an example of attitude as an influencer of the migration decision. From the service literature point, Bansal et al.

(2005) refer to studies of Bansal and Taylor (1999) who state that “attitude toward switching has been associated with consumers' switching intentions”.

Subjective norms. In addition to studies of Gardner (1981), Desbarats (1983), and Ajzen and Fishbein (1980), which are identified by Bansal et al. (2005), Massey et al. (1994) discuss network theory and refer to migrant networks that are made up of connections between migrants, former migrants and nonmigrants and suggests that “the existence of these ties is hypothesized to increase the likelihood of emigration by lowering the costs, raising the benefits, and mitigating the risks of international movement” (Massey et al., 1994, p. 728). It can be said that, if the composition of your social environment is dominated by migrants, the influence results in a decrease in perceived migration costs.

Bansal et al. (2005) state that “inclusion of normative concerns in service-switching research is limited” (p. 102). Not much is in place in the service switching literature regarding subjective norms in respect to other factors. Bansal et al. (2005) mention the study of Bansal and Taylor (1999b) to support that subjective norms as an antecedent of switching.

Switching costs. Bansal et al. (2005) mention Gardner (1981); Lee (1966), Sell and De Jong (1978), and De Jong and Gardner (1981) regarding cost of migration as a mooring factor. Cost of migration is also emphasized in many other studies. It appears in concepts such as distance between locations (Sizer & Smith, 1972; Lee, 1966), well defined streams (Lee, 1966), the expenses associated with selling the home or other capital investments at origin as an economic disincentive (Sell & De Jong, 1978), differences of cost of living between locations (Shields & Shields, 1989), dwelling characteristics that lead to costs (Brown & Moore, 1970) among many others.

Regarding service switching; switching cost can be a previous physical or psychological investment that is compatible with the current service (Klemperer, 1995). According to Colgate and Lang (2001), it is more likely to retain the customer as the investment gets bigger. Switching also has costs related to switching process such as time, effort, and monetary costs of evaluating information (Ganesh et al., 2000).

Switching costs factor is approached by two mentioned views throughout the literature albeit under different number of classifications. Klemperer (1986) has three: learning

costs, transaction costs, contractual / artificial costs. Gremler and Brown (1996) point out 6 different types of switching costs: habit/inertia, setup costs, search costs, learning costs, contractual costs, and continuity costs. Jones (1998) mentions almost the same constructs: learning costs, continuity costs, contractual costs, search costs, setup costs, sunk costs.

There are many other studies covering switching costs as an antecedent of switching (Table A.13):

- Kim (2008) reveals switching costs as an antecedent of switching decision
- Xavier and Ypsilanti (2008), Kim (2008), Matthews et al. (2008), and Clemes et al. (2010) reveal switching costs as an antecedent of switching behaviour
- Gremler and Brown (1996), De Ruyter et al. (1998), Beerli et al. (2004), Aydin and Özer (2004), Aydin et al. (2005), Ibáñez et al. (2006), Hartmann and Ibanez (2007), and Lam et al. (2004) reveal switching costs as an antecedent of loyalty
- Jones et al. (2000) and White and Yanamandram (2007) reveal switching costs as an antecedent of repurchase intentions
- Hess and Ricard (2003) reveal switching costs as an antecedent of retention
- Colgate et al. (2007) reveal switching costs as an antecedent of churn
- Colgate and Lang (2001) reveal relationship investment that has two dimensions, one of which is related to switching costs, as an antecedent of switching behaviour
- Li and Petrick (2008) reveal investment in the relationship as an antecedent of loyalty
- Colgate et al. (2007) reveal time and effort as an antecedent of reasons to stay
- Gamble et al. (2009) reveal information search costs as an antecedent of switching attitude
- Abdelrahmann (2011) reveals duration of the introductory rate (banking sector) as an antecedent of switching behaviour
- Colgate and Lang (2001) reveal apathy that has two dimensions, one of which is related to switching costs, as an antecedent of switching behaviour
- Colgate and Lang (2001) reveal negativity as an antecedent of switching behaviour

- White and Yanamandram (2007) reveal inertia that has two dimensions, one of which is related to switching costs, as an antecedent of repurchase intentions
- Gerpott et al. (2001) reveal (lack of) number portability (telecommunications sector) as an antecedent of retention

In the energy sector, opacity of offers, excessive number of offers, difficulty level of switching (Department of Energy & Climate Change, 2012), and ability of former suppliers to obstruct switching (EC Directorate - General for Health & Consumers, 2010) are prominent factors with physical and psychological costs. A number of those factors are usually observed in the early-mid liberalization stages. Still, in a mature market like Australia, consumers experience problems searching “information relating to a prospective electricity retailer’s contracts, tariffs, and policies” (EY, 2014) and find switching difficult. In addition, consumers also think that switching from the incumbent may cause a power outage (ACER & CEER, 2013).

Residential energy consumers perceive a little higher degree of switching costs (Ibáñez et al. 2006; Watson et al., 2002). In the UK market, relatively few people switched despite the financial benefits due to search and transactional costs (Waterson, 2003). Some consumers prefer fewer options due to its easiness to compare and perception of less selection costs (Brennan, 2007). As emphasized by Annala et al. (2013), difficulties of comparing tariffs have been covered by many studies (Ofgem, 2008; Pakkanen & Narva, 2011; Ek & Söderholm, 2008).

Prior switching behavior. Bansal et al. (2005) approach past behaviors as a part of personal factors, which were included in migration studies of Gardner (1981) and Lee (1966) as a migration factor. In addition to those; there are many studies that mention the fact that there is a connection between past experience and migration behavior (Bloemer et al., 1999; Sell & De Jong, 1978; Bell, 1980; Greenwood, 1985; du Toit, 1990; Greenwood et al., 1991; Fischer & Malmberg, 2001; Massey et al., 1994; Stimson & Minnery, 1998).

There are a number of studies that study prior switching activity as an antecedent of switching (Table A.14) and listed as follows:

- Thomas et al. (2004) study the the probability of a firm reacquiring a customer according to its lapse duration.
- Gustafsson et al. (2005) reveal prior churn as an antecedent of retention.

- Lopez et al. (2006) reveal relationship length as an antecedent of switching behaviour.
- Lam and Burton (2006) reveal length of business relationship as an antecedent of loyalty.

Variety seeking tendencies. Bansal et al. (2005) refer to Jackson (1986) and Greenwood et al. (1991) to support variety-seeking tendencies as a factor of migration decision. In addition to these studies; Sizer and Smith (1972)'s ambition concept, similar with variety seeking, can also be correlated with social mobility.

In service switching context, Roos (1999)'s study is an example of studying variety seeking construct, which is revealed as an antecedent of switching behaviour. White and Yanamandram (2007) developed two dimensions for inertia; and one of them was approached as a behavioural characteristic defined as "the customer is lazy, inactive, or passive" (p.309) which is similar to the variety-seeking construct (Bozzo, 2002; Colgate & Lang, 2001; Huang & Yu, 1999; Zeelenberg & Pieters, 2004). The authors revealed this dimension an antecedent of repurchase intention. Table A.15 summarizes mentioned studies and the related constructs.

3.6.3 Pull factor – Alternative attractiveness

As explained in the previous sections, factors grouped under pull construct are related to the attributes of the target location (in terms of migration theory) or the target supplier (in terms of switching literature). Bansal et al. (2005) state that; "According to the push-pull paradigm, attractive factors at the destination pull the migrant to this destination", mentioning studies of Moon (1995) and Dorigo and Tobler (1983) as examples of migration research. Conversely, if the alternatives are similar, the migration will less likely to happen (Lee, 1966). Attractiveness is classified by Cadwallader (1992) under physical characteristics of the destination location. Du Toit (1990) and Walmsley et al. (1998) also studied attractiveness of alternatives as a migration factor.

Regardless of their availability, alternatives may not be to the migrants' knowledge. Bell (1980) covers this issue in his migration decision framework, referring knowledge of alternatives as an antecedent of migration. In the marketing literature, the fact is similar: customers may be reluctant to switch because alternatives may be worse / not better or they did not know of any alternatives (Colgate et al., 2007).

Information transparency is an important issue in the electricity supply sector as well. Consumers should know that they can switch, how much they can save by switching, and which suppliers are available (ACER & CEER, 2013). However, one of the three main reasons for low switching rates is that consumers “may not be aware of the opportunity to switch, alternative suppliers or the potential benefits of switching” (EC Directorate - General for Health & Consumers, 2010, p.93). Therefore, this issue is examined further by qualitative and quantitative studies of this research.

EU electricity consumers favor the availability of alternative suppliers and tariffs, however it is “easier for consumers to compare different tariffs from the same supplier” (EC Directorate - General for Health & Consumers, 2010, p.396). Briefly it can be said that the significance of the availability of alternatives is more when it is easy to compare. Otherwise, the impact of attractiveness of alternatives decreases with the increasing comparison costs.

Jones (1998) states that in the marketing literature alternative attractiveness is the service quality, which the customer anticipates in the best available alternative to the current supplier. As another resemblance to the migration literature, target vendor (location) is the reference point (Kim et al., 2013) in the marketing literature to assess alternative attractiveness. There are a number of studies referring alternative attractiveness as a service switching factor (Table A.11):

- Colgate et al. (2007) reveal alternatives as an antecedent of reasons to stay
- White and Yanamandram (2007) reveal attractiveness of alternatives as an antecedent of repurchase intentions
- Li and Petrick (2008) reveal quality of alternative options as an antecedent of loyalty
- Keaveney (1995) reveals attraction by competitors as an antecedent of switching behaviour
- Naumann et al. (2010) reveal better service as an antecedent of loyalty
- Colgate and Lang (2001) reveal apathy that has two dimensions, one of which relates to attractiveness of alternatives, as an antecedent of switching behavior

Having discussed the model from the migration theory and marketing perspectives, it can be concluded that there is sufficient support from both areas. Almost all the Pull and Push factors are identified in the migration literature, service switching literature,

and electricity supply sector-specific switching literature. However, Mooring factors are mostly supported by migration and service switching literature only, except for switching costs that has additionally sector-specific support.

Because this study aims to provide more sector and country specific support and extract more factors –if there is any- by getting insight from the electricity supply consumers in Turkey, a qualitative study is conducted as a next step.

4. QUALITATIVE RESEARCH: ADDITIONAL COUNTRY AND SECTOR INSIGHTS

Focus groups [FG] are conducted in order to derive sector / Turkey market / B2B specific constructs and/or provide more support the research model.

As stated before, household behaviour is expected to have similarities with small enterprises in terms of their decision rationality level and decision unit (one person instead of a process that is owned by a group of people) as opposite to large organizations. Thus, households are included in the study as well.

4.1 Methodology

As part of the focus group study, consumers were classified into household and SMEs. All the focus groups were conducted on May, 2014. Semi-structured questionnaires that included the topics to be covered were used so that new topics could be easily included in the interview / focus group conversation. Focus groups took one and a half hour on average each.

Household consumer sample. Two focus groups per city were conducted in İstanbul, Ankara, and İzmir; giving the total number of six (Table 4.1).

Table 4.1 : Focus group study – household subject information.

Focus groups – Household		
City	Qualitative research type	Sample Group
İstanbul	1 FG	7 women
İstanbul	1 FG	7 men
Ankara	1 FG	7 women
Ankara	1 FG	7 men
İzmir	1 FG	7 women
İzmir	1 FG	7 men

Each focus group consisted of seven subjects. In order to ensure homogeneity, subjects were similar in terms of age and socio-economic status [SES]. SES criteria is based on the study of Turkish Researchers' Association, originally named as Türkiye Araştırmacılar Derneği [TÜAD], which reveals the new SES groups for Turkish market (TÜAD, 2012). SES groups are shown in Table A.22.

SME consumer sample. Two focus groups were conducted with SMEs in İstanbul (Table 4.2). Subjects of the first focus group were selected from the commercial sector and subjects of the second were selected from industrial sector due to different electricity consumption profiles and intensity. Each group had seven subjects from companies with similar consumption profiles in order to ensure homogeneity. Subjects were the main decision makers of electricity procurement in their companies. The companies are selected according to below criteria:

- The number of full time employees should be less than 50; based on one of the criteria for the definition of SMEs articulated by Small and Medium Enterprises Development Organization, originally named as Küçük ve Orta Ölçekli İşletmeleri Geliştirme ve Destekleme İdaresi Başkanlığı [KOSGEB] (2012)
- The amount of the monthly bill should be more than TRY 300; so that companies that are below eligibility limit since 2011 are targeted
- The company should not be located in an Organized Industry Zone, originally named as Organize Sanayi Bölgesi [OSB], which are established by the state for SMEs to run more efficient manufacturing operations. The reason for elimination is that companies in an OSB do not choose their suppliers individually; they act together and procure electricity together as one body.

Table 4.2 : Focus group study – SME subject information.

Focus groups - SME		
City	Qualitative research type	Sample Group
İstanbul	1 FG	7 industrial consumers
İstanbul	1 FG	7 commercial consumers

4.2 Results

4.2.1 Household consumers

Decision making unit. Predominantly husbands are the decision makers about electricity purchase in the families. There are no significant differences among cities.

Awareness. The study reveals that;

- Awareness about the privatization process in the electricity supply is low among all groups

- Awareness in İstanbul, Ankara, and İzmir is a little bit higher than other cities
- Ankara has the highest awareness among other cities
- Subjects with relatively high awareness get the information from TV news and the immediate social environment.

Consumption expectancy. Subjects anticipate no significant change in their electricity consumption in the upcoming future. However, bill amounts are expected to increase due to price increases. Families with small children have higher consumption expectancies in respect to others. As one of the participant states:

We live together with my husband and our baby. We are not a large family but my baby's hygiene is very important. For this reason, the washing machine is constantly running. Everything runs on electricity, the appliances will always be electrical as he/she is growing. That's why we are consuming and will always consume a lot of electricity despite we are not a large family.

Bills and payments. Husbands make the payments in general, including the families with working wives. Yet, wives have knowledge of electricity bill amounts. Usually wives take electricity efficiency measures, due to their longer presence in the apartment. General opinion is that white appliances consume the largest part of the electricity and lighting does not occupy a significant amount in the total consumption. Thus, efficiency measures are taken mostly via white appliances.

I never run my washing machine and dish washer before they are completely full, in order to save energy

Complaints about billing and metering. In general, electricity suppliers are criticized for charging loss/theft amounts and TRT tax (Electricity subscribers are charged a tax that is transferred to the public television company and amounts to two percent of their electricity bills) to the end-consumers. It is expected that those amounts will not be charged from the consumers in the future.

In addition, consumers do not trust companies about meter readings. However, complaint rates are low. There are two main reasons for this situation: 1) Perceived time cost of complaining process 2) The belief that no results will be obtained from the complaint.

Time cost perception is highest and complaint rates are lowest for İstanbul residents who tell that they cannot deal with the complaint process due to lack of time.

Participants who complain state that they feel relieved even the complaint is not resolved.

Awareness of sector liberalization. Most of the subjects think wrongly about their supplier's ownership status. The perception is that incumbent suppliers like Boğaziçi Elektrik and Anadolu Yakası Elektrik are state companies, whereas they are privately owned. The incumbent suppliers are highly criticized, yet they are perceived as more trustworthy in respect to independent suppliers.

Other subjects who have negative attitudes to liberalization do not trust the electricity suppliers due to the negativity they experienced during privatization of other public sectors.

Switching attitude and trust. Most of the groups have positive attitudes to switching, however it turns out that they are cautious, due to lack of trust to private companies.

Relationship between switching and reputation / price. In case trust is not a barrier, price is identified as the biggest motivator for switching. It is seen that switching will occur when discounts are significant for the consumers. On the other hand, if the discount is far lower than competitors, then there is a concern about low service quality. Subjects who have low trust to suppliers are more cautious about big discounts:

If something is cheap, there should be a problem with it.

It is seen that reputable companies that can offer reasonable prices can acquire new customers; on the other hand, relatively unknown companies can acquire new customers through recommendations.

Relationship between switching and switching costs. Switching attitude is more positive in the locations except İstanbul. Especially high-income profile living in İstanbul is concerned about the time cost of switching. They are willing to switch if the price benefit exceeds the cost of time; however, they do not believe that suppliers can offer price discounts higher than the time cost. They think that eventually all the prices will converge.

I am too busy to deal with this stuff. Eventually all the prices will be equalized anyway.

Relationship between switching and service quality. It is seen that one-year fixed price offers can be influential for switching decisions. Utility services bundling (the

internet/water/gas/electricity) that comes with a price benefit may result in customer tendency to switch as well.

It is also observed that billing accuracy, punctuality, transparency, and payment options are not sufficient to influence customer's switching decision.

Relationship between switching and supplier characteristics. It is observed that local suppliers have no advantage over foreign suppliers or vice versa.

Relationship between switching and influential triggers. When advertisement and PR facilities are examined, it is seen that they are effective in terms of awareness, yet not sufficient for influencing switching behaviour. Participants think that advertisements have a low impact on buying. A group of subjects thinks that the internet medium is more effective than TV. The younger the subjects, the more they respond to the internet. Finally, İstanbul residents see more value in recommendations.

Don't be the first one to try those types of new stuff. First experiencers are always victims. After the system stabilizes and matures, and when I see people satisfied with switching, I'll think about it.

4.2.2 SME consumers

Decision making unit. The company owner is the most influential person in decision making at both commercial and industrial firms.

Awareness of tariffs & contractual terms. It is observed that awareness of tariffs is lower at the commercial firms when compared to industrial firms. Almost none of the subjects have the knowledge of their contract duration. On the other hand, almost all types of companies follow the price increases and examine their bills.

Complaints about billing. Small enterprises behave in a similar way like household consumers and have low complaint rates. The reason for unwillingness to complain is that consumers think that electricity suppliers would not solve their problems.

Sometimes I see unusually high amounts in my electricity bills and intend to make a complaint. But then the reality hits me regarding nothing will change and I give up. I don't want to waste my time with frustration.

Awareness of liberalization in the sector. The awareness level of liberalization is observed as medium. Subjects think that electricity can be procured from private and public companies. This opinion does not differ among sectors.

Awareness is developed via immediate environment and TV news. Industrial firms mostly get information from TV news while commercial firms get information from their immediate environment.

Consumption expectation. Firms expect a little amount of increase in their consumption. Industrial firms expect slightly more increase in respect to commercial firms.

Switching attitude. Firms mostly have positive approach to switching. Industrial firms are more inclined to switch when compared to commercial firms.

Relationship between switching and price. Due to higher electricity costs, price discounts are more attractive to industrial firms. Some of the subjects switched in the past due to price discounts. The subjects think that ease of switching is not only critical for them but the suppliers as well.

Input costs are critical in the textile atelier. Electricity is one of them. A slight decrease in my electricity costs can decrease the cost of goods significantly. Thus, I'd go for a better price without thinking if offered by a trusted supplier.

Relationship between switching and service quality. It is seen that one-year fixed price offers can be influential for switching decisions. Utility services bundling (the internet/water/gas/electricity) that comes with a price benefit may create customer tendency to switch as well.

It is also observed that billing accuracy, punctuality, transparency, and payment options are not sufficient to influence customer's switching decision.

Relationship between switching and trust / image. Trust is observed as important as price discounts for switching. Trust to private companies is low when compared to public companies, especially among industrial firm subjects. The pursuit of government guarantee arises from the fear of electricity outages.

I can't imagine an electricity outage while manufacturing, it would be a huge monetary cost for us. Private companies don't care about my costs. They only care about their profits.

Because of this concern, the image of the supplier is very critical. The subjects want to get their services from a well-known company. They think that a well-known company can be trusted.

Relationship between switching and influential triggers. The recommendation is critical for switching as well. Especially industrial firms consider that they are important.

Subjects think that face to face sales approaches by firms are important in terms of switching decisions.

The only way to convince me for switching is face-to-face sales. I am a salesperson too. I know whom to trust when I talk face to face. If one can answer all of my questions, than I am convinced

4.3 Discussion

The qualitative phase of the study confirm that most of the model constructs can be applicable for this study's target market. Table 4.3 shows a brief summary of the focus group results.

Table 4.3 : Focus group results summary.

	Households	SMEs
Decision making unit	husband	company owner
Awareness of the liberalization process	low	medium
Information source	TV news and immediate environment	TV news and immediate environment
Consumption expectancy	no significant change	a little amount of increase
Billing incidents	low complaint levels due to the perception of time cost	low complaint levels due to the perception of time cost
Price	most important switching factor	most important switching factor
Switching costs	high time cost perception	high time cost perception
Service quality	bundling and fixed tariff are attractive successful billing is not critical	bundling and fixed tariff are attractive successful billing is not critical
Influential triggers	advertisements affect awareness, not switching	recommendations and face to face sales are critical
Switching attitude	positive but cautious due to lack of trust	positive, industrial firms being more
Image / Trust	low trust decreases positive switching attitude	important as price for switching

Service quality, switching costs, trust, and price are supported by the focus group study. In previous sections, these four factors are also identified in all three literature areas: migration literature, service switching literature, and sector-specific literature. Price has influence on switching only if there is sufficient trust. Billing incidents, as a part of the service quality, do not result in switching evaluation.

In addition, potential additional constructs are identified for the model: influential triggers and image. Image is very close to trust, in the minds of the consumers.

Decision-making units are company owners for SMEs, which may reveal that the buying behaviour is similar to B2C customers due to lack of complex procurement processes.

5. RESEARCH MODEL AND METHODOLOGY

Based on the service switching and migration literature research and focus group studies, it is aimed to collect more support for the research model and add new constructs to propose an extended model. In this section, hypotheses, extended model, survey design, measures, and questionnaire are developed. Before moving forward, two minor topics are discussed as a preparation for the mentioned steps.

“For the most part, migration models implicitly assume the decision maker is an individual, and emphasize individual or head-of-household determinants” (Shields & Shields, 1989, p. 293). Similarly; during the focus groups, head of household, the husband, is observed as the decision maker in terms of electricity procurement. Likewise most of the time head of companies are the decision makers in SMEs. However, the procurement decision maker will be identified for each interview.

Multiple residence and cyclical migration notion has driven attention from McHugh et al. (1995) as “the notion of a single, fixed place of residence is deeply ingrained in population and migration studies in the US” (p. 251). This subject has a similarity to multiple electricity supplier subscriptions, which you can use simultaneously or cyclically (summer-winter residences). There are a number of variations and issues to be resolved:

- Is it a switch, if you subscribe to a service provider as a second subscription that is different from your first one you still hold?
- Which of the subscriptions is the main subscription point in switching terms (usual place of residence - in migration terms (McHugh et al., 1995))?

To overcome those issues, below assumptions are made for the sake of the study:

- Rules defined in the “switching in utilities” section apply
- If there is an identified switching activity in one of the multiple subscriptions, than the subject will be identified as “switched” regardless of the other subscription point(s) that have no switching activity.

- If there are multiple subscriptions to a number of different suppliers, but no switching activity identified, then the subject will be identified as “not switched”

5.1 Research Model and Hypotheses

In this section, hypotheses for the PPM model are developed based on literature research and findings of the qualitative study. Supported by the qualitative study, service switching and migration literature; it is asserted that;

H1: Switching intention is a dependent factor that increases, as the independent push factor, service quality, gets lower.

H2: Switching intention is a dependent factor that increases, as the independent push factor, price perceptions, gets higher.

H3: Switching intention is a dependent factor that increases, as the independent mooring factor, switching costs, gets lower.

Supported by service switching and migration literature; it is asserted that;

H4: Switching intention is a dependent factor that increases, as the independent push factor, satisfaction, gets lower.

H5: Switching intention is a dependent factor that increases, as the independent pull factor, alternative attractiveness, increases.

H6: Switching intention is a dependent factor that increases, as the independent mooring factor, subjective norms, gets more favorable.

H7: Switching intention is a dependent factor that increases, as the independent mooring factor, prior switching behavior, gets more frequent.

H8: Switching intention is a dependent factor that increases as the independent mooring factor, variety seeking, gets higher.

Supported by focus group study and service switching literature; it is asserted that;

H9: Switching intention is a dependent factor that increases, as the independent push factor, trust, gets lower.

Supported by service switching literature; it is asserted that;

H10: Switching intention is a dependent factor that increases, as the independent push factor, value, gets lower.

H11: Switching intention is a dependent factor that increases, as the independent push factor, commitment, gets lower.

H12: Switching intention is a dependent factor that increases, as the independent mooring factor, attitude to switching, gets more favorable.

Based on the migration theory literature, service switching literature, and qualitative study, the model is extended with new constructs, which are social bonds, segment focus, image, and influential triggers. The rationale for each construct development is discussed as follows.

Social bonds. In terms of migration theory, Stimson and Minnery (1998) finds out that “family related factors including the desire to maintain or reestablish familial or other social contacts, as well as seeking to escape such relationships on the part of some people - are significant but less important push factors” (p. 203). If individuals have low quality relationships with the people in their residential environment, this situation can lead to a migration decision to build new ones.

Goldscheider (1971), Johnston (1971), and Uhlenberg (1973) are also examples who “argue that a high degree of community attachment will inhibit migration” (Sell & De Jong, 1978, p. 328).

In service switching literature, the studies below are conducted on social bonds as an antecedent of switching, revealing that customers with weaker social bonds to their service providers are more likely to switch (Table A.17):

- Lam et al. (2009) approached the concept as relational bonds as an antecedent of switching intention.
- Colgate and Lang (2001) approached the concept as one of the dimensions of relationship investment, being an antecedent of switching behaviour
- Gremler and Brown (1996) approached the concept as interpersonal bonds and special treatment, Hennig-Thurau et al. (2001) approached as special treatment benefits and social benefits, and Roos (1999) approached as personnel; all of which are influencing loyalty.

- White and Yanamandram (2007) use interpersonal relationships concept as an antecedent of repurchase intentions
- Gerpott et al. (2001) study personal service benefit for the same concept
- Colgate et al. (2007) approached the concept with two constructs: social and emotional bonds

Jones (1998) uses the concept of interpersonal relationships, which he reveals as an antecedent of loyalty. According to Roos (1999), personnel are critical for creating switching behaviour, which the study approaches as a part of relationship construct. Gremler and Brown (1996) put forward five specific relationship dimensions: familiarity, care, friendship, rapport, and trust stating that “the relationship marketing literature implies that interpersonal relationships are particularly important in the development of loyalty to services” (p. 174).

Based on its existence in both migration theory and service switching literature; social bonds construct as an affective factor facilitating action of the decision unit is proposed for the extended model:

H13: Switching intention is a dependent factor that increases, as the independent push factor, social bonds, gets weaker.

Image. According to Brown and Moore (1970), migrants possess an image of the target location based on prior experiences, before searching for additional information. The image of the location is influential on their decision.

In the switching literature, it is seen that brand building is an important topic in the utilities sector and managers are relatively aware of its importance (Hartmann & Ibanez, 2007).

Lewis and Soureli (2006) reveal that image is an antecedent of switching, just like Kim and Yoon (2004), Aydin and Özer (2004), and Gerpott et al. (2001); who have slightly different approaches using following construct names respectively: brand image, corporate image, and image of competitors (Table A.18). As a result of the discussed findings, image construct is proposed for the extended model.

H14: Switching intention is a dependent factor that increases, as the independent push factor, image, gets worse.

Segment focus. Brown and Moore (1970) lists the influencers of selecting new residence in five topics, one of which is “Social environment: neighborhood prestige, socioeconomic, ethnic, and demographic composition, and perceptions of neighborhood friendliness” (p. 5). The “demographic composition” of the target location is referred as a factor influencing migration decision, such as the example of “an older person moving to a retirement community” (Stimson and Minnery, 1998, p. 197).

An analogy between “demographic composition of the target location” and “customer segment focus of the target service provider” can be made. With this analogy, it can be assumed that SMEs prefer electricity suppliers that have a big portfolio of SMEs and SME / sector focus.

Schertzer (2006) also reveals the impact of customer focus and industry knowledge on switching in a B2B context. Both are handled under quality factors. The concept is also emphasized by a recent business survey study revealing that a significant part of SMEs are motivated by products tailored to their specific business needs and also small businesses in general (Accenture, 2013). Table A.19 briefly summarizes the relevant marketing literature on segment focus. As a result of the findings, segment focus construct is proposed for the extended model.

H15: Switching intention is a dependent factor that increases, as the independent push factor, segment focus, gets lower.

Influential triggers. Switching may also happen when the customer is not in search for a new supplier. Giuliatti et al. (2014) state that the process can start with a visit of a salesperson in countries like Australia where door-to-door sales is common (Annala et al., 2010). EY (2014) reveals that 32% of the consumers switched due to a visit from a door-to-door salesperson. Clemes et al. (2010) and Roos and Gustafsson (2007) also reveal the impact of influential triggers, such as advertisements and salesperson visits, on switching (Table A.20).

As a result of the discussion, influential triggers construct is proposed for the extended model:

H16: Switching intention is a dependent factor that increases as the independent pull factor, influential triggers impact, gets higher.

In addition to hypotheses related to individual factors, hypotheses related to Push, Pull, and Mooring composite constructs are developed as follows:

H17: Push effects is a positive influencer of switching intention

H18: Mooring effects is a negative influencer of switching intention

H19: Pull effects is a positive influencer of switching intention

H20: Mooring effects has a moderating effect on push effects' impact on switching intention

H21: Mooring effects has a moderating effect on pull effects' impact on switching intention

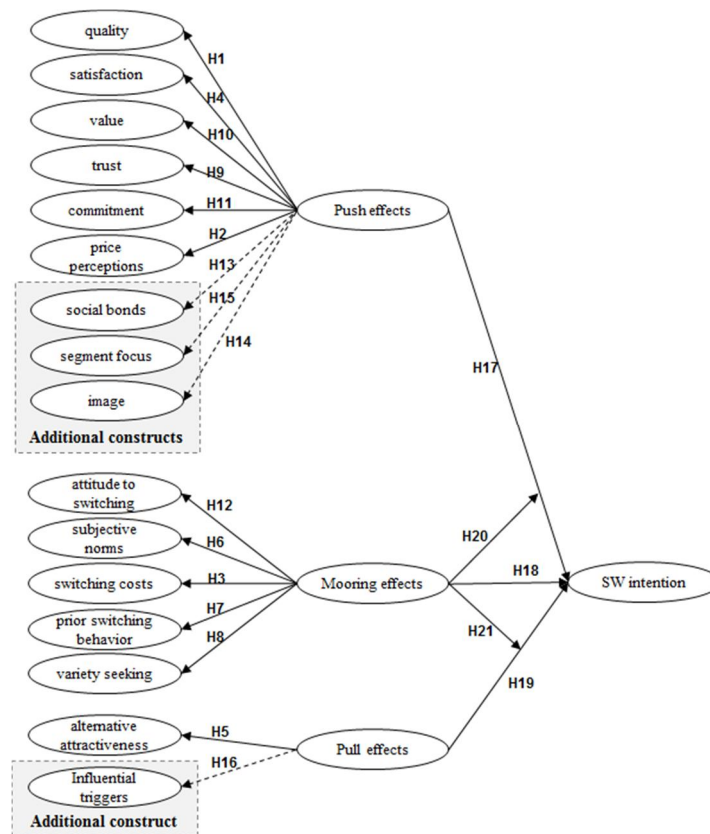


Figure 5.1 : Revised conceptual model.

Based on the hypotheses, the research model is built as shown in Figure 5.1. It is a second-order reflective model with three multidimensional constructs (Roy, 2012).

5.2 Measurement Scales and Questionnaire Design

In this section, the scales and survey questions for each construct of the conceptual model is developed and explained based on the related literature.

Push Factors

Satisfaction. Customer satisfaction is generally approached in two ways. As emphasized by Ibanez et al. (2006), first one is single-item scale (Andreassen & Lindestad, 1998; Bloemer et al., 1999; Bitner, 1990; Bolton & Drew, 1991; Westbrook, 1980; Cronin & Taylor, 1992; Beerli et al., 2004; Fornell, 1992), is used to measure overall evaluations of the service quality (Gustafsson et al., 2005) mentioned in a similar sense by Keaveney (1995), Gerpott et al. (2001), Lam et al. (2004), Aydin et al. (2005), Eshgi et al. (2007), Gustafsson et al. (2005), and Hennig-Thurau et al. (2001) among many others.

Second one is multi-item approach composed of components of the service (Ibanez et al., 2006; Fornell, 1992; Oliver & Swan, 1989). Fornell (1992) classifies satisfaction approaches in three dimensions: general satisfaction, confirmation of expectations, and the distance from the customer's hypothetical ideal product.

Due to the questionnaire length limitation; expectancy, “the degree to which performance exceeds, meets, or falls short of one's expectations” (Oliver & Swan, 1989, p. 26), described by the expectancy disconfirmation model of satisfaction (Oliver & Swan, 1989) as well as other studies (Ibanez et al., 2006; Rust & Zahorik, 1993), is used as the second dimension of satisfaction, along with the overall evaluation item being the first one. Both of the dimensions are adapted originally from Fornell (1992) and Beerli et al. (2004).

Service quality. Service quality is one of the earliest constructs in the literature and three methods stand out for measuring service quality, which is used in many studies such as Beerli et al. (2004), Ibanez et al. (2006), Hartmann and Ibanez (2007), and Lai et al. (2009).

As stated by Ibanez et al. (2006) and Kang and James (2004), these three methods are: SERVQUAL (Parasuraman & Zeithaml, 1988), SERVPERF (Cronin & Taylor, 1992), and service quality model of Grönroos (1984). SERVQUAL measures functional quality whereas Grönroos's model taps technical quality and corporate image. Because electricity suppliers do not have the responsibility of technical quality in Turkey, only functional quality is measured in this study.

Dimensions are adapted from Ibanez et al. (2006) and Hartmann and Ibanez (2007) who originally adapted them from Parasuraman et al. (1988). Both studies are

conducted in electricity markets and include service quality measures that have technical aspects. Those measures are transformed into service related measures where applicable. In addition, a new measure is built regarding accurate and timely billing, which is an important aspect of service quality for electricity suppliers, based on focus group studies.

Value. This study's conceptualization of value is similar to the following definition: "a ratio or trade-off of total benefits received to total sacrifices" (Buzzell & Gale, 1987; Patterson & Spreng, 1997). Thus, the most suitable measures were sought. Bansal et al. (2005)'s measurement item of trade-off, which is adapted originally from Patterson and Spreng (1997) is customized and used together with Lai et al. (2009)'s similar trade-off item that was adapted from Choi et al. (2004).

A second measure that covers the overall evaluation of value is also added, based on Lai et al. (2009).

Trust. Doney and Cannon (1998)'s trust measures for B2B are adapted for this study, covering both credibility and benevolence dimensions. General evaluation of trust measure is based on Caceres and Paparoidamis (2007) in addition to Doney and Cannon (1998)'s measure.

Commitment. The measures are adapted from Morgan and Hunt (1994)'s measures that were previously adapted from Meyer and Allen (1984) and Mowday et al. (1979), based on the forward looking concept of commitment; as opposed to satisfaction.

Price. Two dimensions are set; the first one is the perception of supplier's prices against competitors, the second one is the perception of price differences among all the suppliers. First dimension is adapted from Hartmann and Ibanez (2007) and Bansal et al. (2005), who previously used measures developed by Suri et al. (2000) and Watson et al. (2002). Second dimension is adapted from Annala et al. (2013) and Gamble et al. (2009)'s studies conducted for the utilities sector.

Pull factor – Alternative attractiveness

"The attractiveness of alternatives is based on the customer's perceptions" (Jones, 1998, p.33) thus measures are structured accordingly. First measure is chosen to understand if the consumer is aware of the alternatives, adapting Colgate et al. (2007) and Zhang et al. (2012)'s dimensions of alternative attractiveness. The second one is

chosen if the customer thinks that alternatives are any better, adapting measures in Colgate et al. (2007) and Colgate and Lang (2001)'s studies.

Mooring factors

Switching costs. There are a number of dimensions of switching costs such as uncertainty costs, sunk costs, search costs, and lost performance costs that are very relevant to the utilities sector. Lost performance costs and sunk costs are eliminated due to the limitations of the study. Rest of the factors are covered and an overall perception of switching costs is also added;

- uncertainty costs measures are adapted from Jones et al. (2000), Annala et al. (2013), Gerpott and Mahmudova (2010), and Beerli et al. (2004),
- the search cost measure is adapted from Gerpott and Mahmudova (2010) and Beerli et al. (2004), and
- the overall perception is adapted from Gerpott and Mahmudova (2010) and Lewis and Soureli (2006).

Attitude towards switching. Gamble et al. (2009)'s measure is adapted.

Subjective norms (social influences). Two dimensions are aimed to be measured: (1) The interviewee's perception about if his/her business environment approves of him/her switching (2) The interviewee's perception about if his/her business environment approves of his/her current electricity supplier. For the first one; Bansal et al. (2005)'s measure that is based on Taylor and Todd (1995)'s study is adapted and for the second one Zengyan et al. (2009)'s one of the dimensions of peer influence measure is adapted.

Prior switching behavior. Measures in the Bansal et al. (2005) study are adapted to grab the information of past switching activity.

Variety-seeking tendencies. Bansal et al. (2005)'s measure dimensions, which were originally based on Trijp et al. (1996)'s study and also used by Hou et al. (2011), are adapted for this study.

Additional push factors

Social bonds. Colgate and Lang (2001)'s social bonds dimensions of relationship investment construct are adapted. In addition, one dimension of social bonds measure

from Barry (2004)'s study, which is based on Han (1992) and Rodriguez and Wilson (2002), is adapted.

Image. Image factor is not tested due to limitations of the study.

Segment focus. Segment focus measure is adapted from Schertzer (2006), which has sector focus and industry knowledge items.

Additional pull factor - Influential triggers

Competitor advertisements and approaches with salespersons are aimed to be understood as dimensions of influential triggers. Measure from Clemes et al. (2010)'s study is adapted for the former, and a new dimension was developed for the latter.

Dependent variable – Switching intention

Switching intention, which is the dependant variable of the model, is measured based on measures developed by Bansal et al. (2005) and Hou et al. (2011), who adapted their measures originally from Oliver and Swan (1989).

5.3 Data Collection

Due to research limitations, it is decided to conduct a CATI survey. Because there are many factors to be tested and respondents' attention span at CATI surveys is relatively low, maximum simplicity was looked out for designing the questionnaire to provide fast and accurate interviews.

First three questions are developed to filter survey participants (Table 5.1). The rationale of the filtering is in the focus group study section: First question eliminates OSB companies, second question filters out large companies based on KOSGEB criteria, and third question filters out small consumers who cannot choose competitive tariffs.

Table 5.1 : Survey questions 1-3: Filter questions.

1	Is your business located in an "Organized Industry Zone"?	☐ Yes ☐ No
2	Please indicate your number of employees	☐ Below 9 ☐ between 10-49 ☐ more than 50
3	What is the amount of your aveage monthly electricity bill?	☐ less than TRY 300 ☐ between TRY 300 - 600 ☐ between TRY 600 - 900 ☐ more than TRY 900

Questions 4-8 are developed to get basic company information (Table 5.2). Question 4 and question 5 aim to validate questions 6a, 6b, and 7; in case of uncertainty. Question 6a, 6b, and 7 are asked to classify the respondents based on the sectors. Question 8 is asked to get more insight about respondents' past switching behaviour and awareness.

Table 5.2 : Survey questions 4-8: Company information.

Company information		
4	Please specify your company's name	
5	Please specify your company web address (if applicable)	
6a	What is your company's basic business area?	
6b	Are there any other business areas that your company's in?	☐ No ☐ Yes (Please specify)
7	Is your firm involved in any type of manufacturing?	☐ No ☐ Yes (Please specify)
8	Which company are you procuring electricity from?	 ☐ I don't have any idea

Model constructs are being tested with questions between 9 and 52. Questions 9-11 (Table 5.3) and 41-42 (Table 5.5) have different scales than 12-40 (Table 5.4) where respondents are asked the degree that they agree or don't agree with the given statements.

Table 5.3 : Survey questions 9-11: Model test.

Related construct	Please select the appropriate answer for each of the statements below		
Satisfaction	9	Given our experience with our supplier, I am...	1 very dissatisfied 2 dissatisfied 3 neither satisfied nor dissatisfied 4 satisfied 5 very satisfied
Satisfaction	10	Overall, our supplier our needs	1 certainly doesn't meet 2 doesn't meet 3 neither meets nor doesn't meet 4 meets 5 certainly meets
Switching intention	11	Rate the probability that you would switch from your supplier in the next one year period	1 certainly impossible 2 impossible 3 neither impossible nor possible 4 possible 5 certainly possible

The reason satisfaction and switching intention are queried at the beginning of the questionnaire is to get the satisfaction and intention status of the respondent before he / she gets through a long interview that makes him / her think about and assess electricity supply services deeper than ever before, which he / she wouldn't in regular flow of life. This artificial evaluation process might result in a change in the respondents' minds about their satisfaction levels and intentions to switch; therefore, related questions are asked at the very beginning of the interviews.

Table 5.4 : Survey questions 12-40: Model test.

Related construct	Please select the appropriate answer for each of the statements below		I totally disagree	I disagree	I neither agree nor disagree	I agree	I totally agree
value	12	Considering the trade-off between all the costs and benefits of obtaining the service, the value of service provided by our electricity supplier is excellent	1	2	3	4	5
value	13	Overall, the service I receive from our supplier is valuable	1	2	3	4	5
trust	14	Our supplier keeps promises it makes to our firm	1	2	3	4	5
trust	15	We trust our supplier keeps our best interests in mind	1	2	3	4	5
trust	16	Our supplier is trustworthy	1	2	3	4	5
commitment	17	The relationship that our firm has with our supplier is something our firm intends to maintain in the long term	1	2	3	4	5
commitment	18	The relationship that our firm has with our supplier deserves our firm's maximum effort to maintain	1	2	3	4	5
price perceptions	19	Considering the competitors' tariffs, our supplier's services are reasonably priced	1	2	3	4	5
price perceptions	20	There are only small price differences among different electricity suppliers	1	2	3	4	5
service quality	21	Our supplier offers adequate information about anticipated supply interruptions	1	2	3	4	5
service quality	22	Our supplier offers flexible contracts, adapted to our specific needs	1	2	3	4	5
service quality	23	Our supplier's billing is accurate, timely, and transparent	1	2	3	4	5
social bonds	24	Our suppliers' staff know me (us) well	1	2	3	4	5
social bonds	25	I (we) receive preferential treatment from our supplier	1	2	3	4	5
social bonds	26	A strong friendship has developed with our supplier over the years	1	2	3	4	5
segment focus	27	Our supplier offers customized services to the firms in our industry	1	2	3	4	5
segment focus	28	Our supplier offers customized services to SMEs	1	2	3	4	5
subjective norms	29	Our immediate environment would approve us of switching from our supplier to a new supplier	1	2	3	4	5
subjective norms	30	The respected professionals in our sector have negative thoughts about our electricity supplier	1	2	3	4	5
switching costs	31	I am not sure what the level of service would be if we switched to a new supplier	1	2	3	4	5
switching costs	32	A change to new electricity supplier may cause a power outage	1	2	3	4	5
switching costs	33	It requires too much time and effort to compare the offers of different electricity suppliers	1	2	3	4	5
switching costs	34	Electricity supplier switching is a simple and seamless process	1	2	3	4	5
attitude towards switching	35	Switching supplier is an opportunity not to be forgone	1	2	3	4	5
alternative attractiveness	36	We do not know of any alternatives to move to	1	2	3	4	5
alternative attractiveness	37	We do not think that the alternatives are any better	1	2	3	4	5
variety seeking	38	If we like a service provider, we rarely switch from it just to try different service providers	1	2	3	4	5
variety seeking	39	Overall, we are very cautious in trying out new and different service providers	1	2	3	4	5
influential trigger	40	I pay attention to the information in various types of media channels such as billboards, TV / internet ads, etc.	1	2	3	4	5

Model testing answers are fully acquired with the 42nd question. Final questions are targeting objective facts instead of seeking respondent's evaluations in order to minimize bias caused by the duration of the interview, which made the respondent

focus too much on subjective topics such as his / her electricity consuming behaviours and thoughts.

Table 5.5 : Survey questions 41-42: Model test.

Related construct	Please select the appropriate answer for each of the statements below		
influential trigger	41	I have had meetings with salesmen of our suppliers' competitors	1 never 2 3 4 5 frequently
prior switching behaviour	42	How many times did you switch your electricity supplier until now? (except for moving to a new location)	☐ never ☐ once ☐ twice ☐ 3 times ☐ 4 times

Questions 43-45 (Table 5.6) are directed in order to get additional information about respondents' awareness and integrity in their answers.

Table 5.6 : Survey questions 43-45: Additional information.

Please select or specify the appropriate answer for each of the statements below		
43	If you have switched your supplier at least once, please specify the reason of your most recent switch	
44	What is your average consumption per month (in kWh)?	c less than 400 kWh c between 400 - 800 kWh c between 800 - 1,200 kWh c more than 1,200 kWh c I don't know
45	To what extent are you experienced in switching electricity suppliers?	1 not experienced at all 2 3 4 5 very experienced

The variables are assigned as shown in Table 5.7:

Table 5.7 : Variables assigned for each question.

Variable Name	Survey Question
IN09PS_sat	Given our experience with our supplier, I am...
IN10PS_sat	Overall, our supplier our needs
DP11swi	Rate the probability that you would switch from your supplier in the next one year period
IN12PS_val	Considering the trade-off between all the costs and benefits of obtaining the service, the value of service provided by our electricity supplier is excellent
IN13PS_val	Overall, the service I receive from our supplier is valuable
IN14PS_tru	Our supplier keeps promises it makes to our firm
IN15PS_tru	We trust our supplier keeps our best interests in mind
IN16PS_tru	Our supplier is trustworthy
IN17PS_com	The relationship that our firm has with our supplier is something our firm intends to maintain in the long term
IN18PS_com	The relationship that our firm has with our supplier deserves our firm's maximum effort to maintain
IN19PS_pri	Considering the competitors' tariffs, our supplier's services are reasonably priced
IN20PS_pri	There are only small price differences among different electricity suppliers
IN21PS_ser	Our supplier offers adequate information about anticipated supply interruptions
IN22PS_ser	Our supplier offers flexible contracts, adapted to our specific needs
IN23PS_ser	Our supplier's billing is accurate, timely, and transparent
IN24PS_sbo	Our suppliers' staff know me (us) well
IN25PS_sbo	I (we) receive preferential treatment from our supplier
IN26PS_sbo	A strong friendship has developed with our supplier over the years
IN27PS_seg	Our supplier offers customized services to the firms in our industry
IN28PS_seg	Our supplier offers customized services to SMEs
IN29MO_sub	Our immediate environment would approve us of switching from our supplier to a new supplier
IN30MO_sub	The respected professionals in our sector have negative thoughts about our electricity supplier
IN31MO_swc	I am not sure what the level of service would be if we switched to a new supplier
IN32MO_swc	A change to new electricity supplier may cause a power outage
IN33MO_swc	It requires too much time and effort to compare the offers of different electricity suppliers
IN34MO_swc	Electricity supplier switching is a simple and seamless process
IN35MO_swa	Switching supplier is an opportunity not to be forgone
IN36PL_alt	We do not know of any alternatives to move to
IN37PL_alt	We do not think that the alternatives are any better
IN38MO_var	If we like a service provider, we rarely switch from it just to try different service providers
IN39MO_var	Overall, we are very cautious in trying out new and different service providers
IN40PL_inf	I pay attention to the information in various types of media channels such as such as billboards, TV / internet ads, etc.
IN41PL_inf	I have had meetings with competitor supplier's sales people
IN42MO_psw	How many times did you switch your supplier in the past except for moving reasons?

5.4 Sampling

Surveys are one of the various data collection methods in behavioural research studies (e.g. Punj & Staelin, 1983; Srinivasan & Ratchfor; 1991), as well as field experiment

(e.g. Moore & Lehman, 1980); laboratory experiment through questionnaire (e.g. Brucks, 1985), interview (Newman & Staelin, 1971), protocol analysis (Betmann & Park, 1980), and longitudinal study through survey (Moorthy et al., 1997).

The rationale of the sample population profile has been explained in detail in previous sections. SMEs that; (1) have more than TRY 300 monthly electricity bills, (2) have less than 50 employees, and (3) are not located in the OSBs are targeted in the survey study. A professional survey firm was hired to collect the data. Computer Assisted Telephone Interviewing [CATI] was conducted due to limitations of the study. Interviewers were trained by the researcher about the questions and how they should be directed to the subjects.

Cluster sampling method is utilized because it is more economical compared to other techniques (Churchill & Iacobucci, 2005). The survey study is conducted in Istanbul. According to the year 2014 address based census figures, İstanbul constitutes approximately 20% of Turkey population, who produced more than one fourth of Turkey's gross value in 2011, 72% of which was produced by service sectors (Turkish Statistics TÜİK, 2015). This indicates that İstanbul, a socioeconomically concentrated part of Turkey, is a valid representative of Turkey.

Phone numbers were first grouped by two main districts of İstanbul (Anatolian and European) and then selected randomly. The interviews started in March 2015 and were completed in April 2015.

366 surveys are completed during the survey study. Tabachnick & Fidell (2007) suggest a minimum number of 300 cases for EFA. Hair et al. (2006) state that number of cases should be at least 100 or greater. As cited by a number of authors (Pett et al., 2003; Hair et al., 2006; Tabachnick & Fidell, 2007); Comrey and Lee (1973) reveal that 100 is poor, 200 is fair, 300 is good, 500 is very good, and 1000 or more is excellent. Sample size of this study is 366, which exceeds the limit of "good" and falls behind "very good".

Sample to variable ratio, often denoted as N:p ratio, is another prerequisite recommended by some researchers for EFA. There are different ratios proposed by different studies: 3:1, 6:1, 10:1, 15:1, and 20:1. On the other hand, authors like Hogarty et al. (2005) state that there is not a minimum ratio needed. In both cases, this study is eligible for EFA having a ratio more than 13:1.

6. ANALYSIS AND FINDINGS

In this section; data collection, data analysis and model tests are explained and conducted. Below steps are taken after screening the data:

- Exploratory Factor Analysis [EFA] and Reliability Assessment
- Confirmatory Factor Analysis [CFA] and Measurement Model Estimation
- Structural Equation Modelling [SEM] and Assessment Of Model Fit

EFA is conducted using SPSS 22.0, a statistical package for social sciences (Tabachnick and Fidell, 2007). SPSS AMOS 22.0 was used to perform both CFA and SEM.

6.1 Data Analysis Process

There is an extensive literature behind the analysis methods used in this study and they are explained as below.

6.1.1 Exploratory factor analysis and reliability assessment

Origins of factor analysis, which "is a multivariate statistical approach commonly used in psychology, education, and more recently in health related professions" (Williams et al. 2010, p. 1), go back to studies of Pearson (1901) and Spearman (1904). There are two important types of factor analysis; exploratory and confirmatory (Williams et al., 2010). Although CFA is applied for construct validity purposes, it is critical to perform EFA and a Cronbach alpha reliability assessment prior to CFA for scale refinement and validation (Aaker, 1997; Babin et al., 2000) if there is no preliminary hypothesis about the latent factors and their relationships with observed values (Hox, 1998) or if constructs are not much known (Gerbing & Anderson, 1988). Despite a model from the literature is utilized in this study; items are adapted from a variety of studies and new constructs are also added. Therefore, EFA is utilized for the refinement of the constructs.

Extraction method. Selecting the extraction method is the first step of EFA. There are a number of EFA extraction methods, most important ones being Principal Component Analysis [PCA] and Principal Axis Factoring [PAF] (Henson & Roberts, 2006; Tabachnick & Fidell, 2007). Although the differences between PCA and PAF are insignificant when there are more than 30 variables (Gorsuch, 1983), PCA is recommended for preliminary extraction with EFA (Pett et al., 2003). Therefore, PCA is decided to be the extraction method chosen for the EFA step of this study.

Rotation method. Rotation methods for PCA are classified into two: “orthogonal rotations, such as Varimax, Quartimax, and Equamax, do not allow for correlations, whereas oblique rotations, such as Oblimin, Quartimin, and Promax, consider correlated factors” (Treiblmaier & Filzmoser, 2010, p.199). Varimax produces uncorrelated constructs (Costello & Osborne, 2005) and is the most common rotation technique; thus chosen for this study to “improve the interpretation of the results” (Hox & Bechger, p. 356).

Sampling adequacy measurement. Kaiser-Meyer-Olkin [KMO] Measure of Sampling Adequacy (Kaiser, 1974) and Barlett’s Test of Sphericity [BTS] (Barlett, 1950) should be applied before EFA is conducted (Williams et al., 2010). KMO is recommended for studies having N:p ratios less than 5:1 (Williams et al., 2010). KMO index above 0.50 and BTS below 0.05 are considered eligible for EFA (Hair et al., 2006; Tabachnick & Fidell, 2007).

Determining the number of factors. Determination of the number of factors is performed based on the latent root criterion (Eigen value >1.00) to ensure that “any individual factor should account for the variance of at least a single variable” (Hair et al., 2006, p. 103). The factor loadings above +/-0.50 are evaluated as practically significant (Hair et al., 2006).

Determining reliability. After EFA, Cronbach alpha is calculated to test if each factor is internally consistent with each other (Carmines & Zeller, 1979; Litwin, 1995; Parasuraman et al., 1998), which is a widely used method in social sciences (Churchill et al., 1974; Churchill, 1979; De Vaus, 2002; Litwin, 1995; Peter, 1979). The values equal to or above 0.70 acceptable in terms of reliability (De Vaus, 1996; CDATA-Nunnally & Bernstein, 1978).

6.1.2 Confirmatory factor analysis and measurement model estimation

As the next step; measurement model test is assisted by CFA (Diamantopoulos & Siguaw, 2000; Huang, 2001). The aim of CFA is to confirm the model reconstructed by EFA, and see if it represents the data. It is used to test whether the pre-specified relationships (Hair et al., 2006; Huang, 2001; Jöreskog & Sörbom, 1993) and a relatively strict construct validity (Bagozzi et al., 1991; Steenkamp & Trijp, 1991).

Construct validity is a necessary condition for further theory testing and development (Carmines & Zeller, 1979; Steenkamp & Trijp, 1991). When the measurement model is estimated by CFA, five dimensions of construct validation are assessed. Construct validity requires; (1) unidimensionality of a construct (Gerbing & Anderson, 1988; Steenkamp & Trijp, 1991) (2) reliability, (3) convergent validity, (4) discriminant validity, and (5) nomological validity (Gerbing & Anderson, 1988; Peter, 1981; Steenkamp & Trijp, 1991).

Unidimensionality. Unidimensionality of a construct should be achieved before theory testing (Anderson & Gerbing, 1988); because it shows that items of a construct are internally consistent and externally distinct from other constructs. CFA ensures that a construct is unidimensional (Hair et al., 2006; Hattie, 1985; Gerbing & Anderson, 1988; Steenkamp & Trijp, 1991). It provides assessment of nomological validity, convergent validity and discriminant validity.

Convergent validity. It is assessed by an item's own reliability (ρ), composite reliability (ρ_c) and average variance extracted (ρ_v) [AVE] (Anderson & Gerbing, 1988; Babin et al., 2000; Fornell & Larcker, 1981).

Own reliability is assessed by squared multiple correlation [SMC] of each indicator and the threshold value of 0.50 and above is eligible in terms of convergent validity (Hair et al., 2006; Fornell and Larcker, 1981).

Composite reliability is calculated as $\rho_c = (\sum \lambda)^2 / [(\sum \lambda)^2 + \sum (\theta)]$ where ρ_c stands for composite reliability, λ stands for indicator loadings, θ represents error variance of the indicator and $\sum$ is the summation over the indicators of the latent variable (Diamantopoulos & Siguaw, 2000; Fornell & Larcker, 1981; Hair et al., 2006). If the value is above 0.70, it is acceptable.

Fornell and Larcker (1981) mention that own reliability and composite reliability tests are not sufficient for convergent validity. They suggest that the AVE should be

calculated. AVE is a more strict measure and can spot the convergent validity issues composite reliability may not grab alone. “On the basis of composite reliability alone, the researcher may conclude that the convergent validity of the construct is adequate, even though more than 50% of the variance is due to error” (Malhotra & Dash, 2011, p.702). Diamantopoulos and Siguaw (2000) state that AVE values greater than 0.5 are acceptable.

Additionally, the statistically significant t values for each item are also taken as indicative of convergent validity (Bagozzi et al., 1991; Chau, 1997). Convergent validity measures are summarized in Table 6.1.

Table 6.1 : Convergent Validity Measures.

Measure	Threshold
Own reliability - SMC	> .5
Composite reliability	> .7
AVE	> .5
Significant t values	

Discriminant validity. If the correlation between two constructs is significantly lower than 1.00, the discriminant validity is confirmed (Anderson & Gerbing, 1988; Bagozzi et al., 1991). The chi-square difference test is used for discriminant validity assessment. The models are estimated twice for every possible pair of constructs. In the first estimation model, the phi correlation between constructs is unconstrained and in the second one it is set to 1.00 (Anderson & Gerbing, 1988). If all χ^2 differences are higher than 3.841, the discriminant validity is confirmed (Bagozzi & Philips, 1982). At some instances one or more error terms can be below zero and cause problems. Error terms are constrained with constant values that are calculated as error term value of the construct = 1 - reliability value of the construct (Bagozzi et al., 1991). This test is performed between constructs, excluding single items.

Square roots of each construct's AVE is also compared with inter-construct correlations for discriminant validity. If a construct's inter-construct correlation value is higher than the square root of another construct's AVE, then there is a discriminant validity issue between them (Fornell & Larcker, 1981).

Nomological validity. Nomological validity is concerned about the overall fit of a model. Lages (2000) and Steenkamp and Trijp (1991) suggest using the goodness-of-fit indices in order to assess nomological validity. These indices are explained in the following sections.

In addition, error term variances' t values should be significant for nomological validity (Hair et al., 2006)

Additional actions taken to improve model measures. In addition to keep the variables / factors that meet the mentioned criteria and exclude those that aren't; three types of actions are generally taken case by case, in order to solve the model fit, validity, and reliability issues. (1) If two error terms of the observed variables within the same constructs, or two error terms of the first-order constructs within the same second-order constructs have high modification indices, covariances are added between them. (2) Items with low standardized regression weights [SRW] (factor loadings) are eliminated. (3) Items with high standardized residual covariances are examined for exclusion.

6.1.3 Structural equation modelling and assessment of model fit

SEM is applied to test the structural models (Anderson & Gerbing, 1988) and incorporates simultaneous multiple regression equations (Hair et al., 2006). It is chosen as the methodology to test the research model.

Model's overall fit confirms the consistency of the model based on the observed values (Diamantopoulos & Siguaw, 2000; Hair et al., 2006). There are two types of model's overall fit measures; incremental and absolute goodness of fit [GF] measures. None of the fit test statistics can alone assure model fit. Each measure is superior to the other based on "sample size, estimation procedure, model complexity, violation of underlying assumptions of multivariate normality and variable independence" (Diamantopoulos & Siguaw, 2000, p. 83).

Absolute fit measures. Most common absolute fit measures are chi-square (χ^2), root mean square error of approximation [RMSEA], goodness-of-fit index [GFI] and adjusted goodness-of-fit index [AGFI].

The chi-square is "... a test of perfect fit in which the null hypothesis is that the model fits the population data perfectly" (Diamantopoulos & Siguaw, 2000, p. 83). RMSEA calculates the degree of fit between the model and the population covariance matrix (Diamantopoulos & Siguaw, 2000). Values between 0.05 and 0.08 are acceptable (Hair et al., 2006; Diamantopoulos & Siguaw, 2000). Values below 0.05 is good and above 0.08 is poor (Diamantopoulos & Siguaw, 2000).

GFI compares the squared residuals predicted with the observed values. Values between 0.80 and 0.89 are reasonable (Doll et al., 1994). Values between 0.90 and 1.00 are good (Diamantopoulos & Siguaw, 2000).

AGFI is an extended type of GFI that is “adjusted by the ratio of degrees of freedom for the proposed model to the degrees of freedom for the null model” (Hair et al., 2006, p.657). Recommended value is 0.90 and above (Hair et al., 2006), values between 0.80 to 0.89 are reasonable (Doll et al., 1994).

Incremental fit measures. Common incremental fit measures are normated-fit index [NFI], non-normated fit index [NNFI], and comparative fit index [CFI].

NFI compares the base model with the suggested model ignoring the degrees of freedom. 0.90 and above is mostly recommended (Hair et al., 2006), yet 0.80 – 0.90 range is also acceptable (Durande-Moreau & Usunier, 1999).

NNFI compares the null and the proposed models. It takes the degrees of freedom of both models into account. Recommended value is 0.90 and above (Doll et al., 1994; Hair et al., 2006).

CFI is more appropriate when analysis is run on small sample sizes (Hair et al., 2006), derived from NFI to cover model complexity in a fit measure (Bentler, 1990). Values 0.90 and above are recommended (Mueller, 1996). Table 6.2 shows a summary of the GF measures.

Table 6.2 : GF measures.

Measure	Threshold
Chi-square/df (cmin/df)	< 3 good; < 5 sometimes permissible
RMSEA	< .05 good; .05 - .08 acceptable; moderate; > .08 poor
GFI	. > .90 good; .80 - .89 reasonable
AGFI	. > .90 recommended; .80 - .89 reasonable
NFI	> .90 recommended, .80 – .90 acceptable
NNFI	> .90
CFI	> .90

6.2 Analysis

6.2.1 Data screening

Following the survey study, collected data was screened initially to prevent potential problems in SEM analysis, as suggested by Hair et al. (2006).

Handling missing data. There was no missing data as the surveys are conducted on the phone and missing values are avoided at the interview stage. Thus, no tests are conducted for missing value types such as Missing Completely at Random [MCAR] (Little & Rubin, 2014), Missing at Random [MAR] (Allison, 2001), and Missing Not at Random [MNAR] (Dunning and Freedman, 2008).

Data recoding. Data is recoded in order to provide the same expected direction for all the items. IN29MO_sub, IN30MO_sub, IN34MO_swc, IN35MO_swa, IN40PL_inf, and IN41PL_inf are reversed (1->5, 2->4, 3->3, 4->2, 5->1). In addition, IN42MO_psw is recoded as (0->5, 1->4, 2->3, 3->2, 4->1).

Outlier examination. “An outlier is an observation strikingly far from some central value” (Tukey, 1977, p. 533) and outliers can have “a disproportionate influence on the conclusions” (Orr et al. 1991, p.473). Therefore, data was initially examined by descriptive analysis methods, extracting box-plots diagrams of each observed variable. Points outside the quartiles of a box plot are potential outliers (Tukey, 1977). Each of them are examined. Cases with potential issues are noted to be evaluated at the further steps of the analysis.

Normality testing. There are two prerequisites for SEM: First one is the appropriate sample size, which is covered in the previous sections. The second one is the normal distribution of the data. When univariate skewness and univariate kurtosis are close to 2 and 7 respectively in univariate normality tests using the estimation method of Maximum Likelihood (ML), problems can be experienced (e.g. Chou & Bentler, 1995; Curran et al., 1996). Finney and Distefano (2006) state that no generally accepted cutoff value of multivariate kurtosis, which indicates non-normality, is present.

The skewness and kurtosis values of the variables are calculated using SPSS. While skewness and kurtosis values are mostly between -1 and +1, the skewness to standard error of skewness ratios and the kurtosis to standard error of kurtosis ratios are mostly outside of the -1.96 and +1.96 range, which shows that there are skewness and kurtosis issues. On the other hand, data is examined via histograms and mostly normal distributions are observed in general.

Although the normality tests point out issues; the requirement of meeting the statistical assumptions are not that strict in managerial and social sciences (Bagozzi & Yi, 1988, p. 81). On top of that; “normal theory maximum likelihood (ML) estimators are almost

always acceptable even when data are non-normally distributed” (Bentler & Chou, 1987, p.89) in SEM. As a result, no data transformation methods are utilized until the model fit values are extracted.

Pre-EFA reliability check. Prior to EFA analysis, bivariate correlation tests are conducted for two-item factors and reliability tests are conducted for factors with more than two items in order to have an initial idea about the constructs.

For two-item factors, both Spearman and Pearson correlations, significant at the 0.01 level, are listed in Table 6.3, as well as Cronbach’s alpha reliability statistics for constructs having more than two items.

When results are examined; it is seen that price, influential triggers, subjective norms, and variety seeking factors have weak correlations within their items. Switching costs construct’s Cronbach’s alpha value is 0.492, which is below 0.70, the lower limit for Cronbach’s alpha to confirm the consistency of the scale (Hair et al., 2006; CDATA-Nunnally & Bernstein, 1978). However, Cronbach’s alpha increases to 0.633 when IN34MO_swc variable is deleted from the construct.

Table 6.3 : Correlation and reliability statistics of the model items.

Correlations		
2-item constructs	Spearman's rho	Pearson correlation
Price	0.252	0.253
Influential triggers	0.256	0.256
Subjective norms	0.244	0.262
Variety seeking	0.406	0.391
Value	0.525	0.515
Segment focus	0.672	0.670
Commitment	0.718	0.721
Alternative attractiveness	0.740	0.746
Satisfaction	0.794	0.795
Reliabilities		
Constructs having more than 3-items	# of items	Cronbach's alpha
Trust	3	0.823
Service quality	6	0.753
Social bonds	3	0.780
Switching costs	4	0.472

No items are eliminated at this stage to see how these items combine in the first EFA run. Nevertheless; based on the correlation and reliability numbers, the factor variables

with non-eligible values are expected to combine with factor variables of other scales or have insufficient loadings to be included in the model thus will be eliminated.

6.2.2 EFA

EFA is conducted using the extraction and rotation methods mentioned and described based on the literature in previous sections. The results of the analysis indicate that the sample population chosen for this study is adequate for EFA; as KMO measure of sampling adequacy is calculated as 0.874 that is classified as marvelous (Kaiser, 1974) or great (Hutcheson & Sofroniou, 1999). The bivariate correlations among the extracted scales' items are significantly different from zero according to BTS. KMO and BTS results are shown in Table 6.4.

Table 6.4 : Initial KMO and BTS values.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy	.874
Approx. Chi-Square	4092.841
Bartlett's Test of Sphericity df	378
Sig.	.000

After the first run of EFA, eight factors were extracted, which has eigenvalues more than 1, explaining the 64.87% of the total variance. All factor loadings are above 0.5 except for the IN20PS_pri variable. When IN20PS_pri variable is excluded from EFA and a second run is conducted, the final KMO and BTS results are realized as acceptable again, which are shown in Table 6.5. The total variance explained has an increase from 64.87% to %66.39. Eight factors are extracted again, and items are grouped just as same as the initial EFA results, except for the IN20PS_pri that was excluded.

Table 6.5 : Initial KMO and BTS values after factor exclusion.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy	.876
Approx. Chi-Square	4014.731
Bartlett's Test of Sphericity df	351
Sig.	.000

The new factor structure, including reliability and correlation values are shown in Table 6.6.

Table 6.6 : Final EFA results.

	Component							
	1	2	3	4	5	6	7	8
IN16PS_tru	.804							
IN18PS_com	.803							
IN15PS_tru	.767							
IN14PS_tru	.761							
IN12PS_val	.741							
IN17PS_com	.725							
IN13PS_val	.619							
IN19PS_pri	.610							
IN22PS_ser		.738						
IN27PS_seg		.697						
IN28PS_seg		.651						
IN23PS_ser		.593						
IN21PS_ser		.578						
IN24PS_sbo			.831					
IN25PS_sbo			.829					
IN26PS_sbo			.631					
IN33MO_swc				.753				
IN31MO_swc				.714				
IN32MO_swc				.692				
IN37PL_alt					.912			
IN36PL_alt					.844			
IN39MO_var						.806		
IN38MO_var						.688		
IN29MO_sub							.731	
IN30MO_sub							.694	
IN35MO_swa								.788
IN34MO_swc								.680

Three new constructs are formed by the combination of initial constructs or items. First construct is formed by the combination of trust, commitment, value, and the remainder item of price; explaining a common concept that is not discussed at this phase of the study because it is subject to change through the CFA and SEM analysis. Service quality and segment focus constructs are also combined and formed a new factor. One of the switching costs items and the only switching attitude item combined together as well. For practical reasons, new constructs will temporarily be named after the name of the construct that has the biggest loaded item in the new factors. After CFA and SEM analysis, face validity will be taken into consideration in detail and factors will

be discussed and named based on the literature. Consequently, H1, H10, H9, H11, H15, and H2 are rejected at this phase.

New reliability / correlation values and temporary construct names are listed in Table 6.7. It can be seen that variety seeking and subjective norms constructs have still low values because there is no change in the factor structure. Switching attitude has also low correlation between its items. However, these constructs are kept for CFA analysis.

Table 6.7 : Reliability and correlation values after EFA.

Correlations			
2-item constructs	Temporary construct names	Spearman's rho	Pearson correlation
Component 5	Alternative attractiveness	0.740	0.746
Component 6	Variety seeking	0.406	0.391
Component 7	Subjective norms	0.244	0.262
Component 8	Switching attitude	0.249	0.268
Reliabilities			
Constructs having more than 3-items		# of items	Cronbach's alpha
Component 1	Trust	8	0.902
Component 2	Service quality	5	0.814
Component 3	Subjective norms	3	0.780
Component 4	Switching costs	3	0.633

6.2.3 CFA for the first-order model

Using SPSS AMOS 22, an initial CFA is run for the first-order reflective model in order to gain more insights from the data; despite the original model is second-order reflective (Figure 6.1).

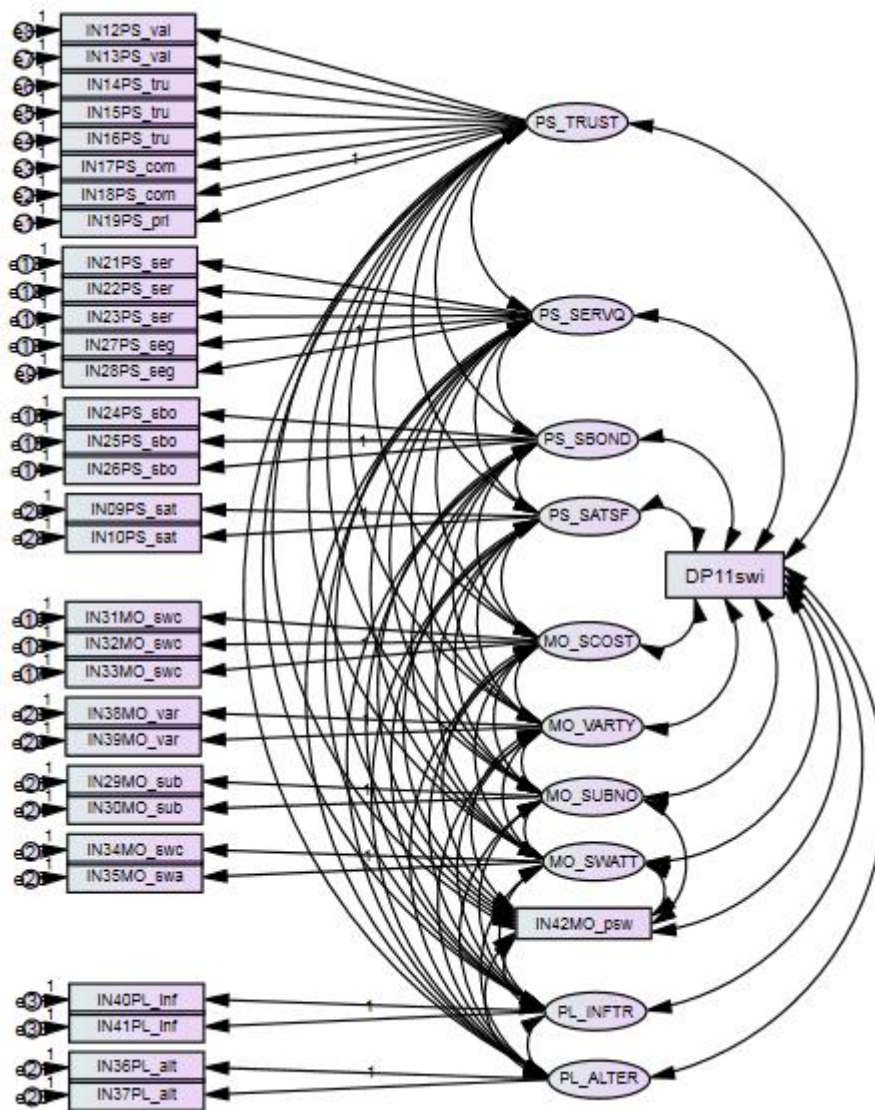


Figure 6.1 : Initial CFA first-order model design.

Model fit measures are listed in Table 6.8 for the first-run of the CFA model.

Table 6.8 : GF measures for the first CFA run of the first order model.

Measure	Value
Chi-square/df (cmin/df)	2.057 (good)
CFI	.903 (meets > .90)
GFI	.873 (reasonable)
AGFI	.834 (reasonable)
RMSEA	.054 (acceptable – almost good)
NFI	.830 (acceptable)

Model meets the fit measures. In order to improve results, error term modification indices are examined and covariances added as appropriate. Model fit measures are listed in Table 6.9 for the improved model.

Table 6.9 : GF measures after adding error term covariances.

Measure	Value
Chi-square/df (cmin/df)	1.748 (good)
CFI	.932 (meets > .90)
GFI	.891 (reasonable)
AGFI	.857 (reasonable)
RMSEA	.045 (good)
NFI	.856 (acceptable)

It is seen that model fit measures are improved. In order to build a stronger model and pass the validity tests, SRWs are examined. Lowest SRW is identified as 0.400 between the variable IN29MO_sub and latent variable MO_SUBNO, therefore IN29MO_sub is deleted from the model. Model fit values improved, yet didn't exceed the thresholds. For this reason, below variables are deleted one by one respectively. The model is run each time a variable is deleted, thus each SRW value is generated after the model is run. It is seen that constructs with low correlations between their items resulted in items with low SRW values at CFA phase (Table 6.10).

Table 6.10 : SRW values of deleted variables.

Relation	SRW
IN34MO_swk <--- MO_SWATT	.418
IN40PL_inf <--- PL_INFTR	.438
IN39MO_var <--- MO_VARTY	.464

IN36PL_alt and IN42MO_psw are also excluded due to high standardized residual covariance values. Table 6.11 shows the improved model fit values.

Table 6.11 : GF measures after deleting variables with low SRW values.

Measure	Value
Chi-square/df (cmin/df)	1.746 (good)
CFI	.950 (meets > .90)
GFI	.913 (good)
AGFI	.880 (reasonable)
RMSEA	.045 (good)
NFI	.892 (acceptable)

It is seen that NFI measure is improved to acceptable levels yet less than the thresholds with small amounts. For the sake of face validity, no more actions is taken until SEM

analysis. As a result, the final model (Figure 6.2) is to be put to SEM analysis in the next sections.

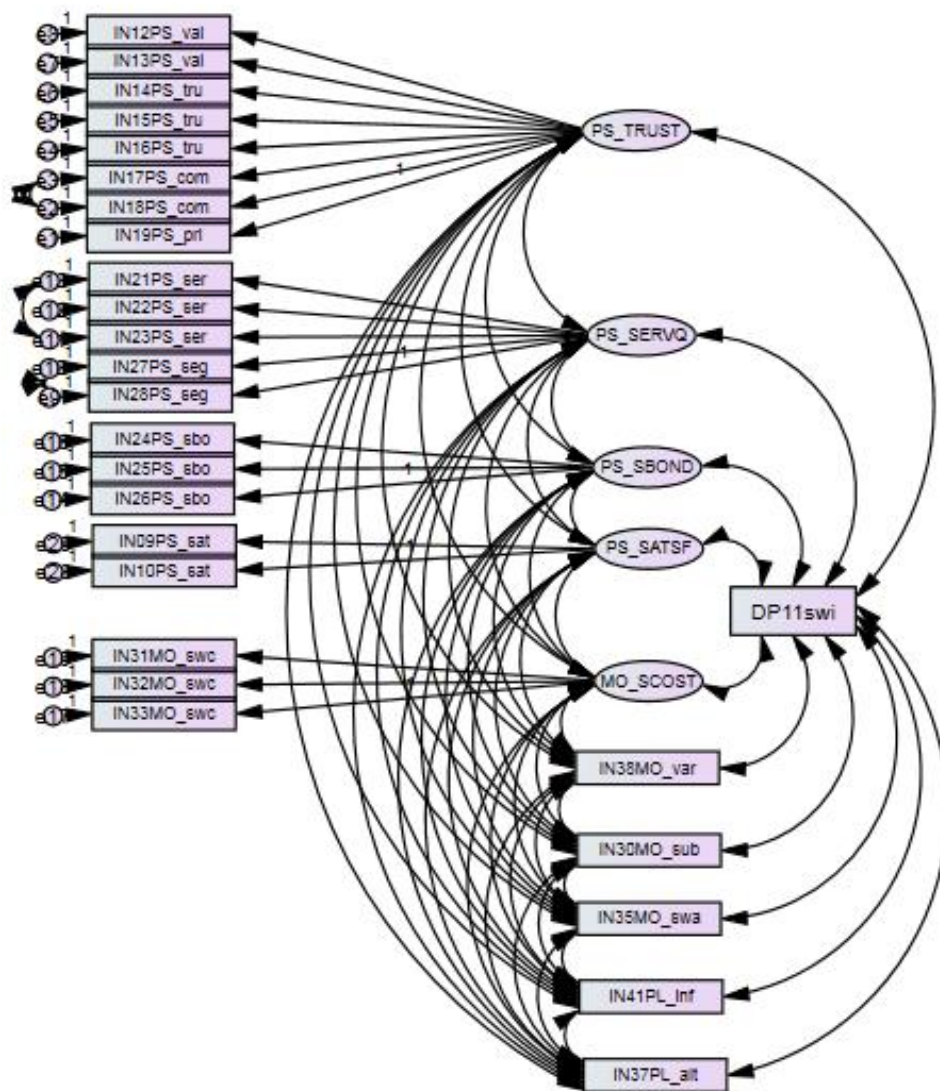


Figure 6.2 : First-order model design after CFA.

As shown in the figure, pull factors are lost, the final model has two separate pull items now. Mooring factors now have actually one construct and three separate variables. In other words, most of the latent variables lost their items and are represented by one observed variable each. Pull factors managed to keep their items and all of them are represented by the latent variables.

In terms of convergent validity, t values are significant as shown in Table 6.12.

Table 6.12 : Regression Weights and t values.

			Estimate	S.E.	C.R.	P
IN19PS_pri	<---	PS_TRUST	1.000			
IN18PS_com	<---	PS_TRUST	1.161	.091	12.800	***
IN17PS_com	<---	PS_TRUST	1.086	.089	12.224	***
IN16PS_tru	<---	PS_TRUST	1.266	.098	12.980	***
IN15PS_tru	<---	PS_TRUST	1.202	.098	12.319	***
IN14PS_tru	<---	PS_TRUST	1.173	.092	12.729	***
IN13PS_val	<---	PS_TRUST	.889	.086	10.328	***
IN12PS_val	<---	PS_TRUST	1.130	.091	12.395	***
IN28PS_seg	<---	PS_SERVQ	1.000			
IN27PS_seg	<---	PS_SERVQ	1.025	.082	12.489	***
IN23PS_ser	<---	PS_SERVQ	1.434	.140	10.224	***
IN22PS_ser	<---	PS_SERVQ	1.537	.148	10.420	***
IN21PS_ser	<---	PS_SERVQ	1.311	.145	9.020	***
IN26PS_sbo	<---	PS_SBOND	1.000			
IN25PS_sbo	<---	PS_SBOND	1.398	.116	12.029	***
IN24PS_sbo	<---	PS_SBOND	1.198	.107	11.199	***
IN33MO_swc	<---	MO_SCOST	1.000			
IN32MO_swc	<---	MO_SCOST	.773	.108	7.163	***
IN31MO_swc	<---	MO_SCOST	.764	.097	7.867	***
IN10PS_sat	<---	PS_SATSF	1.000			
IN09PS_sat	<---	PS_SATSF	.968	.046	20.967	***

In addition to t values, AVE values are calculated and shown in Table 6.13.

Table 6.13 : AVE values of constructs.

Construct	AVE
PS_SERVQ	0.466
PS_SBOND	0.563
MO_SCOST	0.384
PS_SATSF	0.795

AVE values are above 0.5 for PS_SBOND and PS_SATSF. PS_SERVQ has a value below 0.5 yet acceptable. MO_SCOST has a relatively low AVE value that may lead to issues in the following phases. Composite reliability values are calculated for convergent validity, and the results being higher than 0.70 are significant for constructs (Table 6.14).

Table 6.14 : Composite Reliability values of constructs.

Construct	Composite Reliability
PS_TRUST	0.98
PS_SERVQ	0.96
PS_SBOND	0.96
MO_SCOST	0.94
PS_SATSF	0.99

SMC values are also examined for convergent validity. Table 6.15 shows that IN3IN31MO_sw, IN32MO_sw, IN27PS_seg, IN28PS_seg, and IN13PS_val items all have very low SMC values. CFA results can be improved by deleting these variables, however they will be handled at the SEM phase for the sake of face validity.

Table 6.15 : SMC values.

	Estimate
IN09PS_sat	.775
IN10PS_sat	.815
IN31MO_sw	.386
IN32MO_sw	.265
IN33MO_sw	.499
IN24PS_sbo	.491
IN25PS_sbo	.750
IN26PS_sbo	.449
IN21PS_ser	.426
IN22PS_ser	.617
IN23PS_ser	.636
IN27PS_seg	.343
IN28PS_seg	.310
IN12PS_val	.563
IN13PS_val	.364
IN14PS_tru	.601
IN15PS_tru	.554
IN16PS_tru	.632
IN17PS_com	.546
IN18PS_com	.612
IN19PS_pri	.420

In terms of discriminant validity, square roots of AVE values lower than 0.5 are compared with inter-construct correlations. Square root of PS_SERVQ AVE is 0.68 and MO_SCOST is 0.62. There is only one inter-construct correlation higher than those, which is on the PS_TRUST column and equal to 0.72. Because there is not much difference, the model will be kept as it is, however discriminant issues may be experienced in the SEM analysis.

The chi-square difference test is also applied for discriminant validity. All differences are above 3.84 and significant.

For nomological validity, in addition to model fit measures; error terms variances are examined: All t values are significant as shown in Table 6.16.

Table 6.16 : Variances of error terms.

	Estimate	S.E.	C.R.	P
e1	.672	.053	12.680	***
e2	.416	.036	11.608	***
e3	.476	.040	12.010	***
e4	.454	.039	11.525	***
e5	.565	.047	12.077	***
e6	.444	.038	11.768	***
e7	.671	.052	12.853	***
e8	.482	.040	12.026	***
e9	.684	.054	12.607	***
e10	.619	.050	12.467	***
e11	.362	.042	8.706	***
e12	.452	.045	9.994	***
e13	.712	.065	11.033	***
e14	.490	.044	11.078	***
e15	.261	.049	5.370	***
e16	.595	.056	10.549	***
e17	.473	.063	7.525	***
e18	.780	.069	11.375	***
e19	.438	.045	9.644	***
e28	.227	.036	6.241	***
e29	.272	.036	7.492	***

After checking all aspects of CFA, the first-order model is kept as previously shown in Figure 6.2 for SEM analysis.

6.2.4 CFA for the second-order model

Using SPSS AMOS 22, an initial CFA is run for the second-order reflective model (Figure 6.3).

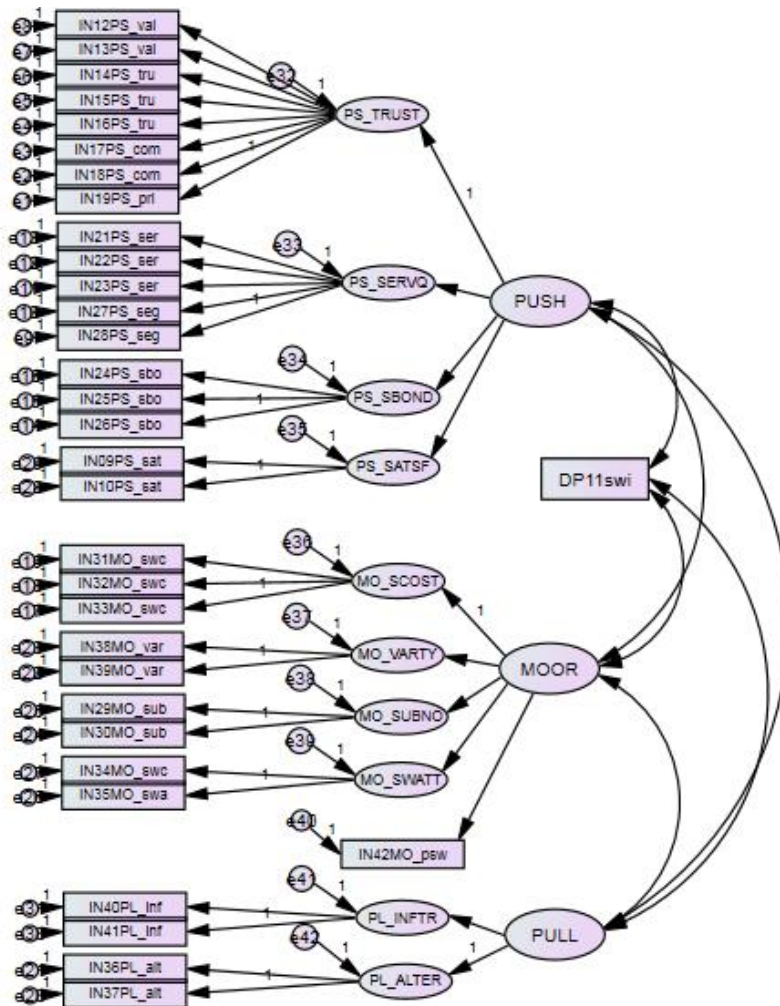


Figure 6.3 : Initial CFA second-order model design.

Model fit measures are listed in Table 6.17 for the first-run of the CFA model.

Table 6.17 : GF measures for the first CFA run of the 2nd order model.

Measure	Value
Chi-square/df (cmin/df)	2.308 (good)
CFI	.866 (doesn't meet > .90)
GFI	.844 (reasonable)
AGFI	.817 (reasonable)
RMSEA	.060 (acceptable)
NFI	.787 (doesn't meet > .80)

It is seen that NFI measure does not meet model fit measures. In order to improve the results shown in Table 6.17, error term modification indices are examined and

covariances added as appropriate. Model fit measures are listed in Table 6.18 for the improved model.

Table 6.18 : GF measures after adding error term covariances.

Measure	Value
Chi-square/df (cmin/df)	1.976 (good)
CFI	.901 (meets > .90)
GFI	.865 (reasonable)
AGFI	.841 (reasonable)
RMSEA	.052 (almost good)
NFI	.819 (acceptable)

Measures improved and model fit is established. In order to strengthen the model, SRWs are examined. Variables shown in Table 6.19 are deleted one by one respectively. The model is run each time a variable is deleted.

Table 6.19 : SRW values of deleted variables.

Relation	SRW
IN38MO_var <--- MO_VARTY	.091
IN42MO_psw <--- MOOR	-.179
IN34MO_swc <--- MO_SWATT	.346
IN39MO_var <--- MOOR	.389
IN41PL_inf <--- PL_INFTR	.457
IN40PL_inf <--- PULL	-.176
IN35MO_swa <--- MOOR	-.485

Table 6.20 shows the values after deleting the variables with low SRW values.

Table 6.20 : GF measures after deleting variables with low SRW values.

Measure	Value
Chi-square/df (cmin/df)	1.954 (good)
CFI	.932 (meets > .90)
GFI	.893 (reasonable)
AGFI	.869 (reasonable)
RMSEA	.051 (almost good)
NFI	.871 (acceptable)

It is seen that measures improved. Next, standardized residual covariances, SMCs, SRWs, are examined iteratively; IN32MO_swc and MO_SUBNO are deleted to solve the issues that arose. Final results appeared as shown in Table 6.21.

Table 6.21 : Final GF measures for the second-order model.

Measure	Value
Chi-square/df (cmin/df)	1.945 (good)
CFI	.950 (meets > .90)
GFI	.911 (meets > .90)
AGFI	.887 (reasonable)
RMSEA	.051 (almost good)
NFI	.904 (meets > .90)

As seen in Table 6.22, t values are significant representing the convergent validity of the model.

Table 6.22 : Regression weights and t values.

			Estimate	S.E.	C.R.	P
PS_TRUST	<---	PUSH	1.000			
PS_SERVQ	<---	PUSH	.734	.084	8.716	***
PS_SBOND	<---	PUSH	.450	.067	6.670	***
PS_SATSF	<---	PUSH	1.207	.109	11.092	***
IN19PS_pri	<---	PS_TRUST	1.000			
IN18PS_com	<---	PS_TRUST	1.163	.091	12.816	***
IN17PS_com	<---	PS_TRUST	1.089	.089	12.248	***
IN16PS_tru	<---	PS_TRUST	1.267	.098	12.984	***
IN15PS_tru	<---	PS_TRUST	1.199	.098	12.298	***
IN14PS_tru	<---	PS_TRUST	1.170	.092	12.702	***
IN13PS_val	<---	PS_TRUST	.885	.086	10.288	***
IN12PS_val	<---	PS_TRUST	1.128	.091	12.377	***
IN28PS_seg	<---	PS_SERVQ	1.000			
IN27PS_seg	<---	PS_SERVQ	.987	.074	13.257	***
IN23PS_ser	<---	PS_SERVQ	1.066	.108	9.903	***
IN22PS_ser	<---	PS_SERVQ	1.188	.118	10.086	***
IN21PS_ser	<---	PS_SERVQ	1.096	.116	9.445	***
IN26PS_sbo	<---	PS_SBOND	1.000			
IN25PS_sbo	<---	PS_SBOND	1.397	.116	11.993	***
IN24PS_sbo	<---	PS_SBOND	1.186	.106	11.172	***
IN33MO_swc	<---	MO_SCOST	1.000			
IN31MO_swc	<---	MO_SCOST	.898	.184	4.877	***
IN37PL_alt	<---	PL_ALTER	1.000			
IN36PL_alt	<---	PL_ALTER	1.324	.144	9.228	***
IN10PS_sat	<---	PS_SATSF	1.000			
IN09PS_sat	<---	PS_SATSF	.983	.048	20.572	***

In addition to t values, AVE values are calculated for convergent validity check and they are shown in Table 6.23.

Table 6.23 : AVE values of constructs.

Construct	AVE
MO_SCOST	0.449
PUSH	0.622

AVE value is above the acceptable threshold of 0.5 for PUSH composite construct. MO_SCOST construct has a value below the threshold 0.5 still in acceptable ranges. SMC values are also listed in for examining the convergent validity. It is seen that

PS_SBOND, IN13PS_val, IN28PS_seg, and IN21PS_ser SMC values are relatively low (Table 6.24).

Table 6.24 : SMC values.

	Estimate
PS_SATSF	.682
PS_SBOND	.232
PS_SERVQ	.628
PS_TRUST	.946
IN09PS_sat	.787
IN10PS_sat	.803
IN36PL_alt	.971
IN37PL_alt	.573
IN31MO_swC	.465
IN33MO_swC	.435
IN24PS_sbo	.484
IN25PS_sbo	.753
IN26PS_sbo	.452
IN21PS_ser	.383
IN22PS_ser	.474
IN23PS_ser	.452
IN27PS_seg	.409
IN28PS_seg	.399
IN12PS_val	.562
IN13PS_val	.362
IN14PS_tru	.599
IN15PS_tru	.553
IN16PS_tru	.633
IN17PS_com	.550
IN18PS_com	.615
IN19PS_pri	.420

In terms of discriminant validity, square roots of AVE values lower than 0.5 are compared with inter-construct correlations. Square root of MO_SCOST is 0.67 and PUSH is 0.79. There is no inter-construct correlation higher than those values thus no issues found.

The chi-square difference test is also applied for discriminant validity. All differences are above 3.84 and significant.

For examining nomological validity, all of the error terms variances are examined: All t values are identified as significant except for error terms e32 and e21. However,

overall model has a good fit and supported by the theory studied in the literature research phase, therefore no actions are taken for the non-significant values. The error terms are listed Table 6.25.

Table 6.25 : Variances of error terms.

	Estimate	S.E.	C.R.	P
e32	.026	.020	1.286	.198
e33	.147	.032	4.640	***
e34	.309	.048	6.459	***
e35	.314	.047	6.640	***
e1	.671	.053	12.656	***
e2	.413	.036	11.529	***
e3	.473	.040	11.942	***
e4	.452	.039	11.461	***
e5	.567	.047	12.050	***
e6	.446	.038	11.740	***
e7	.674	.052	12.843	***
e8	.484	.040	11.996	***
e9	.595	.052	11.350	***
e10	.557	.049	11.273	***
e11	.546	.051	10.667	***
e12	.620	.059	10.450	***
e13	.766	.066	11.632	***
e14	.487	.044	11.009	***
e15	.257	.049	5.208	***
e16	.603	.057	10.595	***
e17	.534	.091	5.894	***
e19	.382	.072	5.329	***
e20	.385	.058	6.608	***
e21	.027	.089	.307	.759
e28	.242	.038	6.432	***
e29	.257	.037	6.909	***

After checking all aspects of CFA and taking the necessary model improvement actions, the second-order model is preserved as shown in Figure 6.4 for SEM analysis.

6.2.5 SEM for the first-order model

Using SPSS AMOS Using SPSS AMOS 22, SEM analysis is conducted for the first-order reflective model (Figure 6.5). Model structure of the 1st order CFA result is used as the initial model.

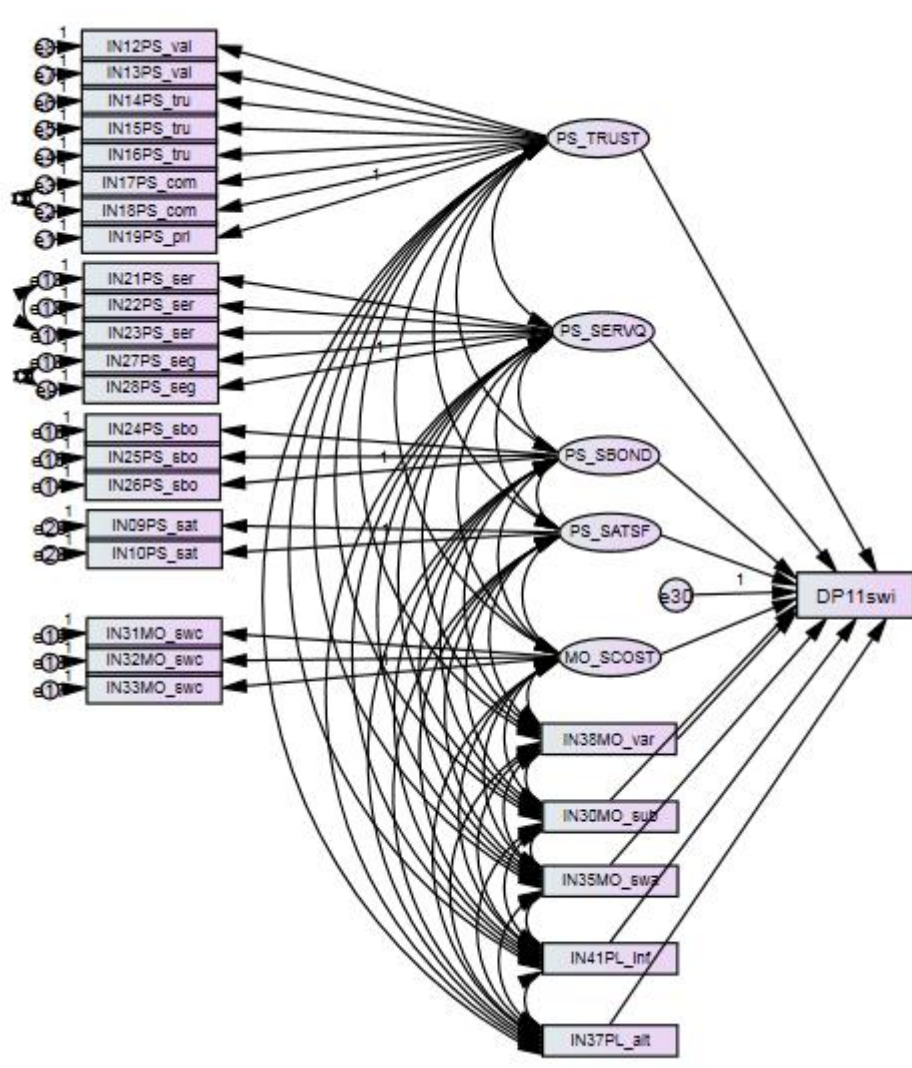


Figure 6.5 : Initial SEM first-order model design.

Model fit measures are listed in Table 6.26 for the first-run of the SEM model.

Table 6.26 : GF measures for the first SEM run of the 1st order model.

Measure	Value
Chi-square/df (cmin/df)	1.746 (good)
CFI	.950 (meets >.90)
GFI	.913 (good)
AGFI	.880 (meets > .80)
RMSEA	.045 (good)
NFI	.892 (acceptable)

Model fit is established at the initial run. To have improved results, error term modification indices are examined, and no appropriate covariances found to be added. Thus, SRWs are examined for low values. Variables / factors with low values are deleted one by one (Table 6.27). The model is run each time a variable is deleted.

Table 6.27 : SRW values of deleted variables.

Relation	SRW
DP11swi <--- IN38MO_var	-.037
DP11swi <--- IN41PL_inf	.025
DP11swi <--- IN37PL_alt	-.029
DP11swi <--- PS_SBOND	.065
DP11swi <--- MO_SCOST	-.056

Table 6.28 shows the model fit values after exclusion of items with low SRW values.

Table 6.28 : GF measures after deleting variables with low SRW values.

Measure	Value
Chi-square/df (cmin/df)	1.728 (good)
CFI	.973 (great)
GFI	.941 (good)
AGFI	.916 (meets > .80)
RMSEA	.045 (good)
NFI	.938 (meets > .90)

The measures improved, yet there are a few problems. (Table 6.29).

Table 6.29 : Regression weights and t values of SEM model.

	Estimate	S.E.	C.R.	P
IN19PS_pri <--- PS_TRUST	1.000			
IN18PS_com <--- PS_TRUST	1.163	.091	12.740	***
IN17PS_com <--- PS_TRUST	1.088	.089	12.171	***
IN16PS_tru <--- PS_TRUST	1.278	.098	13.001	***
IN15PS_tru <--- PS_TRUST	1.201	.098	12.250	***
IN14PS_tru <--- PS_TRUST	1.181	.093	12.721	***
IN13PS_val <--- PS_TRUST	.884	.086	10.228	***
IN12PS_val <--- PS_TRUST	1.126	.092	12.290	***
IN28PS_seg <--- PS_SERVQ	1.000			
IN27PS_seg <--- PS_SERVQ	1.037	.085	12.172	***
IN23PS_ser <--- PS_SERVQ	1.480	.151	9.812	***
IN22PS_ser <--- PS_SERVQ	1.589	.158	10.084	***
IN21PS_ser <--- PS_SERVQ	1.385	.157	8.843	***
IN10PS_sat <--- PS_SATSF	1.000			
IN09PS_sat <--- PS_SATSF	.978	.047	20.856	***
DP11swi <--- PS_TRUST	-.051	.193	-.262	.793
DP11swi <--- PS_SERVQ	-.463	.166	-2.795	.005
DP11swi <--- PS_SATSF	-.354	.108	-3.272	.001
DP11swi <--- IN30MO_sub	-.151	.049	-3.063	.002
DP11swi <--- IN35MO_swa	-.190	.048	-3.982	***

PS_TRUST -> DP11swi is not significant. However, regression weights of items of PS_TRUST are acceptable. Thus, standardized residual covariances are examined to see if some of the variables of PS_TRUST can be excluded to improve the model. IN19PS_pri, IN14PS_tru, IN28PS_seg, and IN27PS_seg are deleted from the model and new regression weights and t values are realized as shown in Table 6.30.

Table 6.30 : Regression weights of SEM model.

	Estimate	S.E.	C.R.	P	Label
IN18PS_com <--- PS_TRUST	1.000				
IN17PS_com <--- PS_TRUST	.946	.051	18.441	***	
IN16PS_tru <--- PS_TRUST	1.069	.067	15.927	***	
IN15PS_tru <--- PS_TRUST	1.027	.069	14.948	***	
IN13PS_val <--- PS_TRUST	.750	.065	11.528	***	
IN12PS_val <--- PS_TRUST	.951	.064	14.807	***	
IN23PS_ser <--- PS_SERVQ	1.000				
IN22PS_ser <--- PS_SERVQ	1.015	.081	12.459	***	
IN21PS_ser <--- PS_SERVQ	.928	.089	10.471	***	
IN10PS_sat <--- PS_SATSF	1.000				
IN09PS_sat <--- PS_SATSF	.991	.048	20.465	***	
DP11swi <--- PS_TRUST	-.191	.159	-1.199	.231	
DP11swi <--- PS_SERVQ	-.244	.099	-2.462	.014	
DP11swi <--- PS_SATSF	-.288	.108	-2.675	.007	
DP11swi <--- IN30MO_sub	-.143	.049	-2.901	.004	
DP11swi <--- IN35MO_swa	-.186	.048	-3.896	***	

As seen in the Table 6.30, PS_TRUST -> DP11swi relationship became stronger yet t value is still above the threshold. PS_SERVQ is at an acceptable level, and all the rest are significant. In addition to t values, AVE values are calculated to check convergent validity and shown in Table 6.31.

Table 6.31 : AVE values of constructs.

Construct	AVE
PS_TRUST	0.471
PS_SERVQ	0.445
PS_SATSF	0.551
IN30MO_sub	0.017
IN35MO_swa	0.030

AVE values are above 0.5 for PS_SATSF. PS_SERVQ and PS_TRUST have values below 0.5 yet acceptable. IN30MO_sub and IN35MO_swa have unacceptable values. In terms of discriminant validity, square roots of AVE values lower than 0.5 are compared with inter-construct correlations. Square root of PS_SERVQ AVE is 0.67. There are two inter-construct correlations higher than those, one of which is on the

PS_TRUST column and equal to 0.69 and the other on the PS_SATISF column and equal to 0.74. Square root of PS_TRUST AVE is 0.69. There is one inter-construct correlation which is on the PS_SATISF column and equal to 0.74. Because differences are low, these constructs will be kept as it is, however IN30MO_sub and IN35MO_swa will be deleted.

Final model fit measures are listed in Table 6.32.

Table 6.32 : GF measures after deleting variables with low SRW values.

Measure	Value
Chi-square/df (cmin/df)	1.876 (good)
CFI	.982 (meets > .90)
GFI	.963 (good)
AGFI	.938 (meets > .90)
RMSEA	.049 (good)
NFI	.962 (meets > .90)

t values are listed below and they are acceptable for convergent validity (Table 6.33).

Table 6.33 : Regression weights and t values of SEM model.

	Estimate	S.E.	C.R.	P
IN18PS_com <--- PS_TRUST	1.000			
IN17PS_com <--- PS_TRUST	.946	.051	18.413	***
IN16PS_tru <--- PS_TRUST	1.071	.067	15.909	***
IN15PS_tru <--- PS_TRUST	1.028	.069	14.916	***
IN13PS_val <--- PS_TRUST	.753	.065	11.556	***
IN12PS_val <--- PS_TRUST	.952	.064	14.770	***
IN23PS_ser <--- PS_SERVQ	1.000			
IN22PS_ser <--- PS_SERVQ	.995	.082	12.148	***
IN21PS_ser <--- PS_SERVQ	.925	.088	10.457	***
IN10PS_sat <--- PS_SATSF	1.000			
IN09PS_sat <--- PS_SATSF	.992	.049	20.459	***
DP11swi <--- PS_TRUST	-.296	.162	-1.828	.067
DP11swi <--- PS_SERVQ	-.192	.098	-1.956	.051
DP11swi <--- PS_SATSF	-.284	.112	-2.539	.011

In addition to t values, AVE values are recalculated to check convergent validity and shown in Table 6.34.

Table 6.34 : AVE values of constructs.

Construct	AVE
PS_SERVQ	0.445
PS_TRUST	0.474
PS_SATSF	0.551

PS_SATSF AVE value is above 0.5. PS_SERVQ and PS_TRUST have values below 0.5 yet acceptable. Composite reliability values are calculated and all of them are significant for constructs. Results are shown in Table 6.35.

Table 6.35 : Composite reliability values of constructs.

Construct	Composite reliability
PS_TRUST	0.98
PS_SERVQ	0.97
PS_SATSF	0.99

Finally, SMC values are shown in Table 6.36 where it is seen that DP11swi variable has a low SMC value. However, it passed the rest of the tests successfully therefore kept in the model.

Table 6.36 : SMC values.

	Estimate
DP11swi	.286
IN09PS_sat	.795
IN10PS_sat	.795
IN21PS_ser	.479
IN22PS_ser	.583
IN23PS_ser	.697
IN12PS_val	.548
IN13PS_val	.359
IN15PS_tru	.557
IN16PS_tru	.620
IN17PS_com	.569
IN18PS_com	.623

In terms of discriminant validity, square roots of AVE values lower than 0.5 are compared with inter-construct correlations. Square root of PS_SERVQ construct AVE is 0.67. There are two inter-construct correlations higher than those, one of which is on the PS_TRUST column and equal to 0.69 and the other on the PS_SATISF column and equal to 0.74. Square root of PS_TRUST AVE is 0.69 as well.

There is one inter-construct correlation, which is on the PS_SATISF construct column and equal to 0.74. Because differences are low, these constructs will be kept as it is. Final first-order model with SRW values after SEM analysis is shown in Figure 6.6.

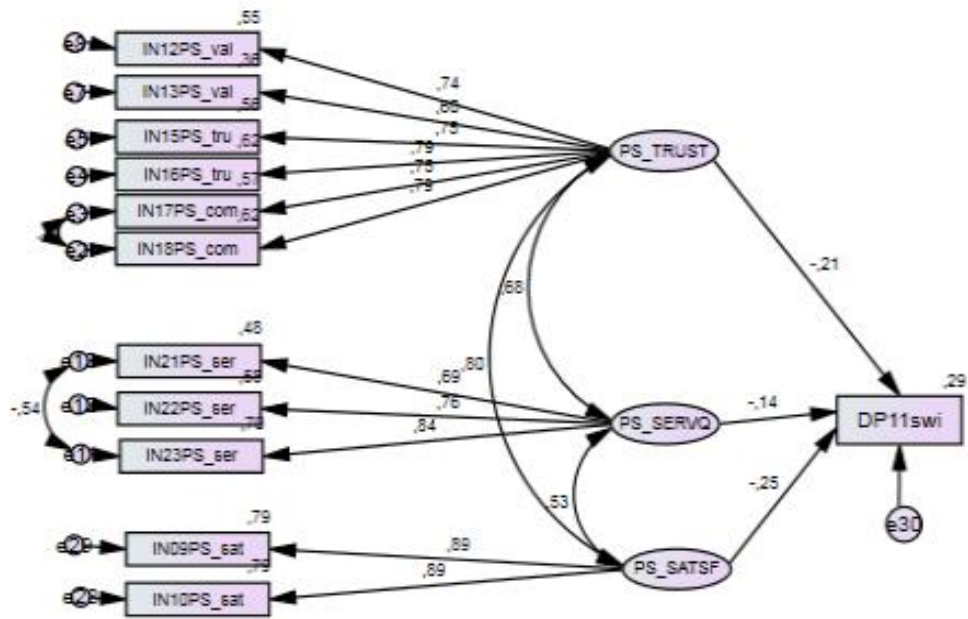


Figure 6.6 : First-order model with SRW values after SEM analysis.

Same model is shown in Figure 6.7 with unstandardized regression values [URW].

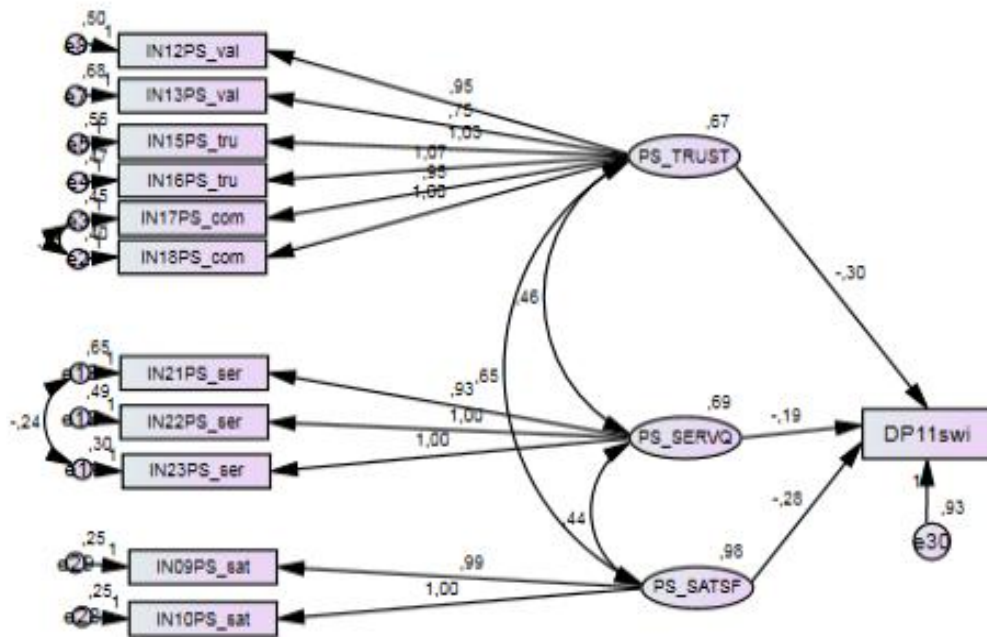


Figure 6.7 : First-order model with URW values after SEM analysis.

The chi-square difference test is also applied for discriminant validity. All differences are above 3.84 and significant. For nomological validity, error terms variances are examined: All t values are significant as shown in Table 6.37.

Table 6.37 : Variances of error terms.

	Estimate	S.E.	C.R.	P
e2	.404	.037	10.818	***
e3	.452	.040	11.274	***
e4	.468	.042	11.025	***
e5	.561	.048	11.609	***
e7	.677	.053	12.672	***
e8	.499	.043	11.678	***
e11	.301	.054	5.572	***
e12	.491	.055	8.968	***
e13	.647	.073	8.918	***
e28	.252	.038	6.612	***
e29	.248	.037	6.617	***
e30	.930	.070	13.198	***

After SEM analysis, the first-order model is finalized as shown in Figure 6.6

6.2.6 SEM for the second-order model

SEM analysis is conducted for the second-order reflective model (Figure 6.8).

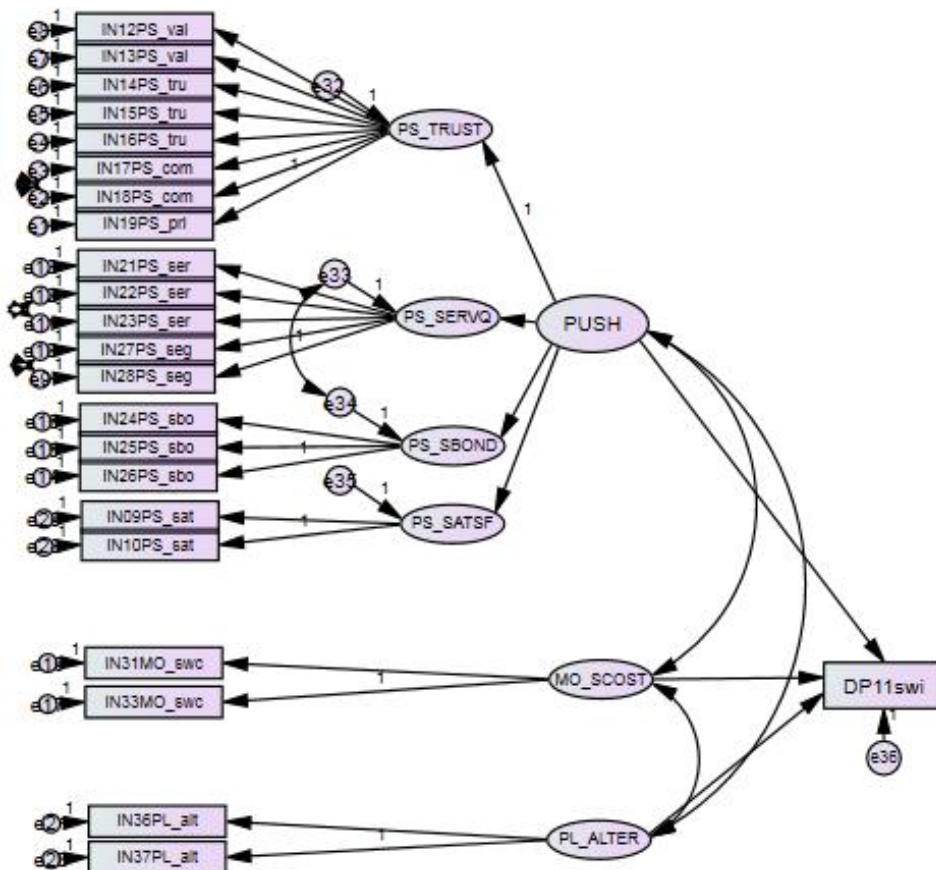


Figure 6.8 : Initial SEM second-order model design.

Model fit measures are listed in Table 6.38 for the first-run of the 2nd order SEM model.

Table 6.38 : GF measures for the first SEM run of the 2nd order model.

Measure	Value
Chi-square/df (cmin/df)	1.945 (good)
CFI	.950 (meets > .90)
GFI	.911 (good)
AGFI	.887 (reasonable)
RMSEA	.051 (almost good)
NFI	.904 (meets > .90)

In order to improve results, error term modification indices are examined, and no appropriate covariances are found to be added in the model. Therefore, SRWs are examined further. SRW of DP11swi <- PL_ALTER constructs relationship has a -.022 value. In addition, its t value is not significant. Therefore, it is deleted. After another run, DP11swi <- MO_SCOST constructs relationship had the same problem, including the observed variable IN31MO_swc of MO_SCOST construct. After deletion, all t values are significant and all SRW values are acceptable. Table 6.39 shows the final values.

Table 6.39 : GF measures after deleting variables with low SRW values.

Measure	Value
Chi-square/df (cmin/df)	2,116 (good)
CFI	.956 (meets > .90)
GFI	.919 (good)
AGFI	.892 (reasonable)
RMSEA	.055 (almost good)
NFI	.920 (meets > .90)

It is seen that still all the measurement values meet the related model fit criteria. The final model lost all its Pull and Mooring constructs and kept Push constructs of Trust, Service Quality, Social Bonds, and Satisfaction. It is seen that Push composite construct has an important influence on switching intention. On the other hand, Push constructs are able to keep their observed variables and each of them are identified as significant.

Final model can be seen in Figure 6.9 with SRW values and Figure 6.10 with URW values.

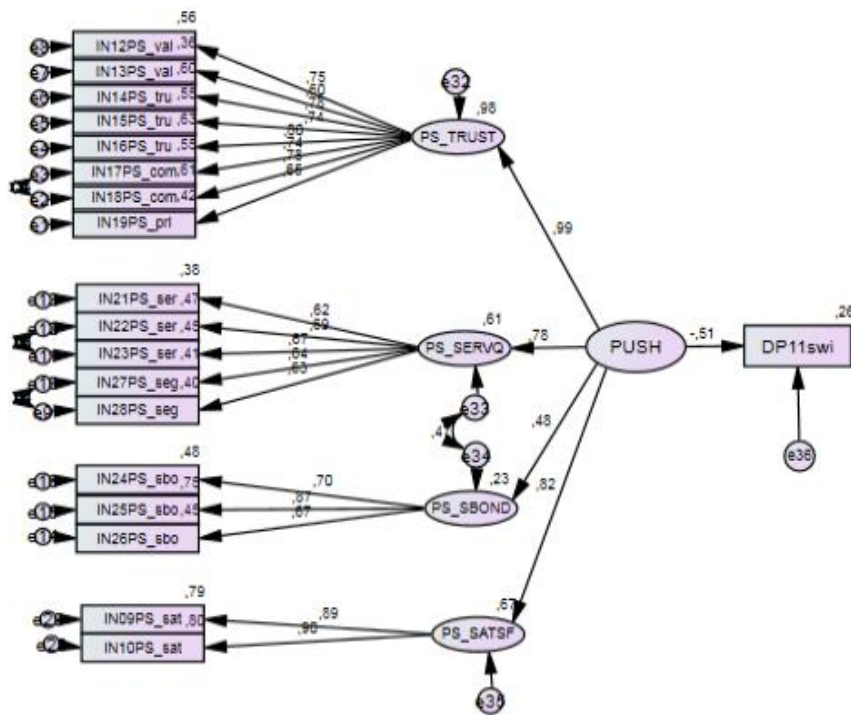


Figure 6.9 : Second-order model with SRW values after SEM analysis.

Same model is shown in Figure 6.10 with URW values.

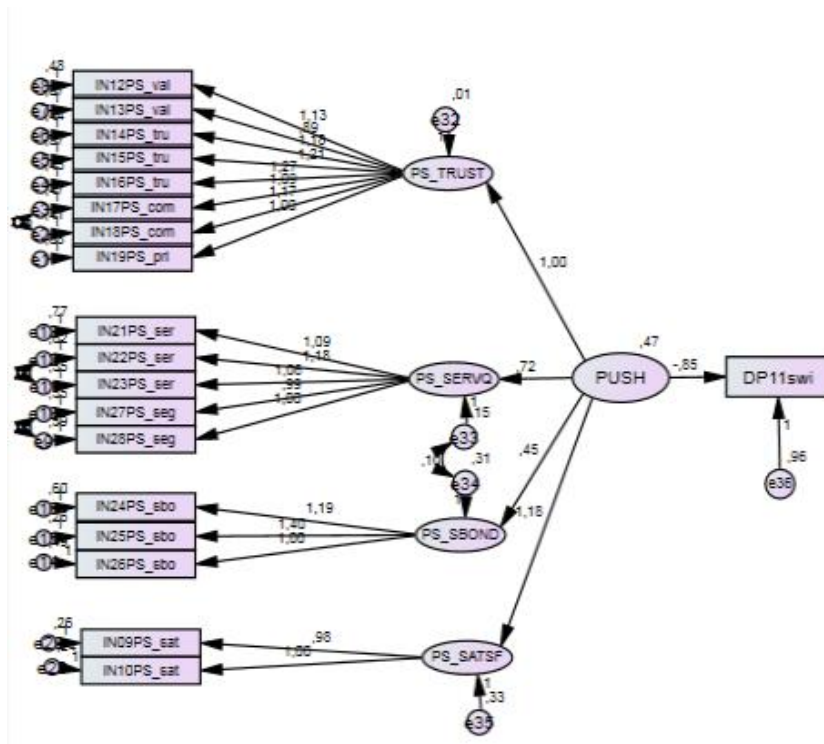


Figure 6.10 : Second-order model with URW values after SEM analysis.

In terms of convergent validity, t values are significant and they are shown in Table 6.40.

Table 6.40 : Regression weights and t values.

			Estimate	S.E.	C.R.	P
PS_TRUST	<---	PUSH	1.000			
PS_SERVQ	<---	PUSH	.718	.083	8.606	***
PS_SBOND	<---	PUSH	.445	.067	6.661	***
PS_SATSF	<---	PUSH	1.183	.109	10.898	***
IN19PS_pri	<---	PS_TRUST	1.000			
IN18PS_com	<---	PS_TRUST	1.168	.092	12.737	***
IN17PS_com	<---	PS_TRUST	1.094	.090	12.183	***
IN16PS_tru	<---	PS_TRUST	1.274	.099	12.922	***
IN15PS_tru	<---	PS_TRUST	1.206	.099	12.244	***
IN14PS_tru	<---	PS_TRUST	1.178	.093	12.651	***
IN13PS_val	<---	PS_TRUST	.889	.087	10.241	***
IN12PS_val	<---	PS_TRUST	1.134	.092	12.317	***
IN28PS_seg	<---	PS_SERVQ	1.000			
IN27PS_seg	<---	PS_SERVQ	.990	.075	13.273	***
IN23PS_ser	<---	PS_SERVQ	1.060	.108	9.861	***
IN22PS_ser	<---	PS_SERVQ	1.184	.118	10.058	***
IN21PS_ser	<---	PS_SERVQ	1.095	.116	9.436	***
IN26PS_sbo	<---	PS_SBOND	1.000			
IN25PS_sbo	<---	PS_SBOND	1.396	.116	12.003	***
IN24PS_sbo	<---	PS_SBOND	1.185	.106	11.174	***
IN10PS_sat	<---	PS_SATSF	1.000			
IN09PS_sat	<---	PS_SATSF	.984	.048	20.558	***
DP11swi	<---	PUSH	-.849	.101	-8.426	***

In addition to t values, AVE values could not be calculated because there is only one composite construct with no covariances attached to another. The chi-square difference test could not be applied as well for the same reason for convergent validity examination.

For examining nomological validity fit, all of the error terms variances are examined to see if there are any insignificant values that may indicate the model has nomological problems: All t values are identified as significant except for the error term e32. Because the model is able to be eligible according to the model fit criteria and has a literature basis that is researched at the early stages of this study, no further action is

considered to be taken to improve the research model and the final extracted model is kept as it is. The error terms are shown in Table 6.41.

Table 6.41 : Variances of error terms.

	Estimate	S.E.	C.R.	P
PUSH	.470	.074	6.391	***
e32	.012	.021	.564	.573
e33	.155	.033	4.730	***
e34	.309	.048	6.470	***
e35	.327	.048	6.739	***
e1	.676	.053	12.674	***
e2	.414	.036	11.547	***
e3	.473	.040	11.953	***
e4	.451	.039	11.457	***
e5	.566	.047	12.050	***
e6	.444	.038	11.732	***
e7	.675	.053	12.849	***
e8	.483	.040	12.000	***
e9	.594	.053	11.308	***
e10	.553	.049	11.207	***
e11	.549	.051	10.682	***
e12	.622	.060	10.448	***
e13	.766	.066	11.609	***
e14	.487	.044	11.009	***
e15	.257	.049	5.216	***
e16	.603	.057	10.603	***
e28	.243	.038	6.448	***
e29	.256	.037	6.880	***
e36	.964	.074	12.948	***

After SEM analysis, the second-order model is finalized as previously shown in Figure 6.9

6.3 Results

CFA and SEM model fit results are summarized in Table 6.42. Four of the models met the model fit criteria after several actions are taken to improve model measures, which are explained in previous sections.

Table 6.42 : GF measures by analysis.

Model Fit Measures	1st order CFA	2nd order CFA	1st order SEM	2nd order SEM
Chi-square/df	1.746	1.945	1.876	2.116
CFI	0.950	0.950	0.982	0.956
GFI	0.913	0.911	0.963	0.919
AGFI	0.880	0.887	0.938	0.892
RMSEA	0.045	0.051	0.049	0.055
NFI	0.892	0.904	0.962	0.920

In each of the model tests, different model structures are formed, as shown in Figure 6.11. In the first-order model CFA analysis, most of the constructs could be kept yet some of them lost their items and became 1-item factors. In the second-order model CFA analysis, the situation is almost the same. CFA item loss is relatively small in respect to SEM because some items with non-eligible values are also kept for face-validity reasons, to be examined in the SEM phase. However, some of those had to be rejected in the SEM phase as well resulting in final model structures shown as below.

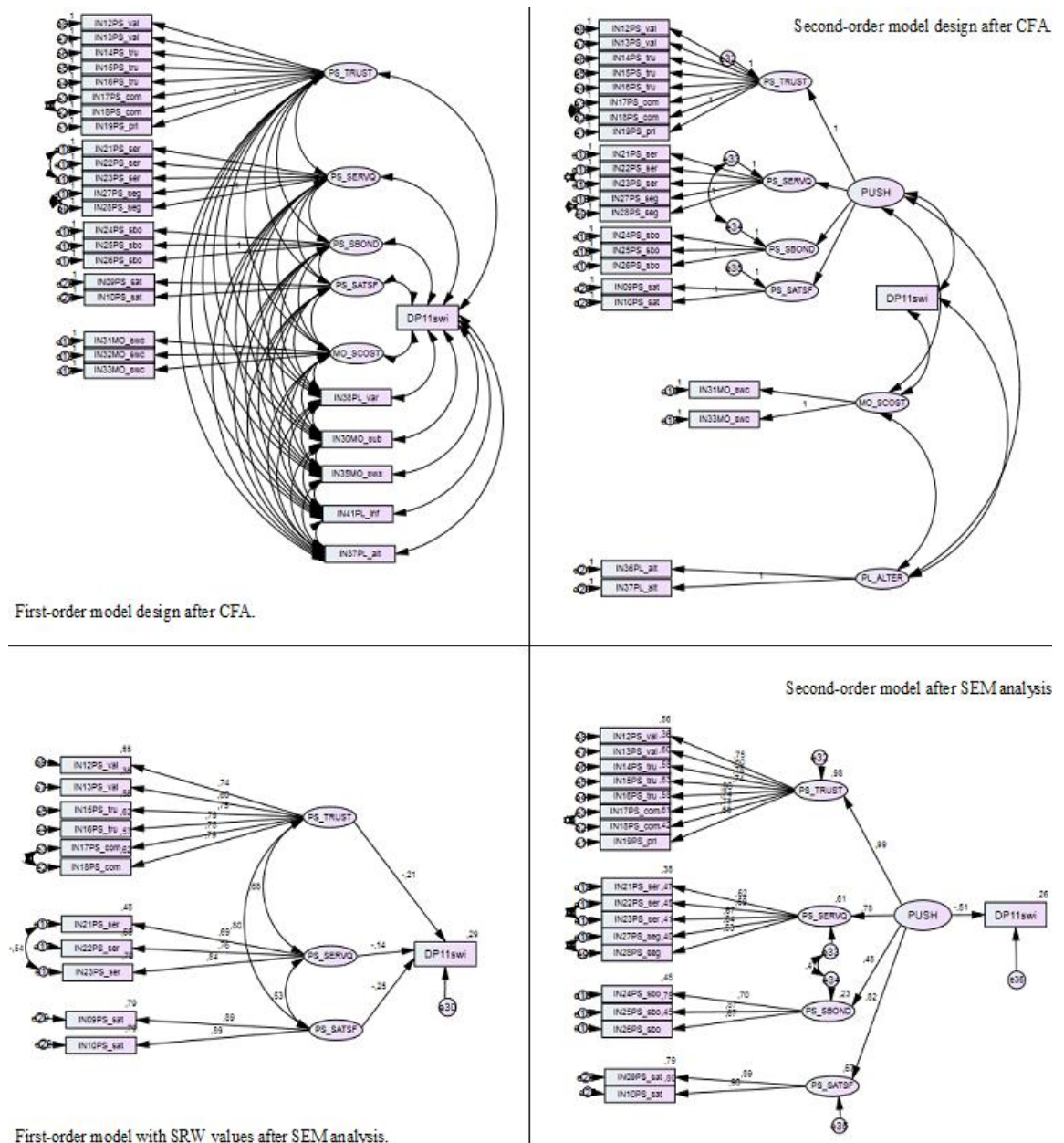


Figure 6.11 : Comparative presentation of CFA and SEM models.

When Table 6.43 is examined, it is seen that PS_SATISF construct passed all the eligibility phases and form a strong construct. Therefore, it is revealed that. H4 cannot

be rejected. PS_TRUST construct also passed all the analysis stages, only having some issues at 1st order SEM analysis. It can be evaluated as a strong construct as well. PS_SERVQ construct is another construct that was able to pass all the stages, however it experienced issues at 1st order CFA and 1st order SEM analysis.

PS_SBOND construct failed at 1st order SEM analysis and had some issues at 2nd order CFA stage, yet made its way through 2nd order SEM analysis. Therefore, it can be said that it is the weakest construct of the research model. Consequently, it can be revealed that H13 cannot be rejected. Constructs with problematic reliabilities like MO_VARTY, MO_SUBNO, MO_SWATT, and PL_INFTR experienced problems almost every stage, they could not make it to the 2nd order SEM analysis, and are eliminated at 2nd order CFA phase. H6, H8, H12, H16 are rejected. PL_ALTER and MO_SCOST constructs failed at both 1st order SEM and 2nd order SEM analysis. H3 and H5 are rejected. The issues experienced with constructs are detailed in Table A.21.

Table 6.43 : Actions taken for constructs throughout the analyses¹⁰.

Observed Variable Name	EFA	REL	CFA 1st	SEM 1st	CFA 2nd	SEM 2nd
PS_TRUST	√	√	√	O	√	√
PS_SERVQ	√	√	O	O	√	√
PS_SBOND	√	√	√	x	O	√
PS_SATISF	n/a	√	√	√	√	√
MO_SCOST	√	√	O	x	√	x
MO_VARTY	√	O	O	x	x	-
MO_SUBNO	√	O	O	x	x	-
MO_SWATT	√	O	O	x	x	-
PL_INFTR	n/a	O	O	x	x	-
PL_ALTER	√	√	O	x	√	x

In Table 6.44, actions can be examined at item-level. PS_TRUST was able to keep all of its items throughout the analyses. However, IN13PS_val, IN19PS_pri, and IN14PS_tru are relatively problematic items. PS_SERVQ also kept its entire items, yet IN27PS_seg and IN28PS_seg experienced problems throughout the analyses.

¹⁰ X stands for the deleted construct, O stands for the construct that is kept despite some problems, and √ stands for the construct that is kept with no problems

IN21PS_ser had also a few issues. PS_SATSF as a construct or as separate items, made it through the analyses without any problems, thus is again stronger against other constructs. Three of PS_SBOND items failed at 1st order SEM, yet passed all other phases successfully. IN42MO_psw item failed at every phase. H7 is rejected. The issues experienced with items are also detailed in Table A.21.

Table 6.44 : Actions taken for items throughout the analyses¹¹.

	Latent Variable	Variable Name	Observed Variable Name	EFA	REL	CFA 1st	SEM 1st	CFA 2nd	SEM 2nd
PUSH	Trust	PS_TRUST	IN16PS_tru	√	√	√	√	√	√
			IN18PS_com	√	√	√	√	√	√
			IN15PS_tru	√	√	√	√	√	√
			IN14PS_tru	√	√	√	x	√	√
			IN12PS_val	√	√	√	√	√	√
			IN17PS_com	√	√	√	√	√	√
			IN13PS_val	√	√	O	√	O	√
			IN19PS_pri	√	√	√	x	√	√
	Service Quality	PS_SERVQ	IN22PS_ser	√	√	√	√	√	√
			IN27PS_seg	√	√	O	x	√	√
			IN28PS_seg	√	√	O	x	O	√
			IN23PS_ser	√	√	√	√	√	√
			IN21PS_ser	√	√	√	√	O	√
	Social Bonds	PS_SBOND	IN24PS_sbo	√	√	√	x	√	√
			IN25PS_sbo	√	√	√	x	√	√
			IN26PS_sbo	√	√	√	x	√	√
	Satisfaction	PS_SATSF	IN09PS_sat	-	√	√	√	√	√
			IN10PS_sat	-	√	√	√	√	√
MOORING	Switching Costs	MO_SCOST	IN33MO_swc	√	√	√	x	√	x
			IN31MO_swc	√	√	O	x	√	x
			IN32MO_swc	√	√	O	x	x	x
	Variety Seeking	MO_VARTY	IN39MO_var	√	O	x	-	x	-
			IN38MO_var	√	O	√	x	x	-
	Subjective Norms	MO_SUBNO	IN29MO_sub	√	O	x	-	x	-
			IN30MO_sub	√	O	√	x	x	-
	Switching Attitude	MO_SWATT	IN35MO_swa	√	O	√	x	x	-
			IN34MO_swc	√	O	x	-	x	-
PULL	Prior Switching Behaviour	N/A	IN42MO_psw	-	-	x	-	x	-
	Influential Triggers	PL_INFTR	IN40PL_inf	-	O	x	-	x	-
			IN41PL_inf	-	O	√	x	x	-
N/A	Alternative Attractiveness	PL_ALTER	IN37PL_alt	√	√	√	x	√	x
			IN36PL_alt	√	√	x	-	√	x
N/A	N/A	N/A	IN20PS_pri	x	-	-	-	-	-

When SRW values of 1st order SEM analysis are examined thoroughly, it is seen that PS_SATSF construct has variables that strongly explain the construct, and also have the highest effect on DP11swi independent variable. PS_TRUST construct has strong

¹¹ X stands for deleted item, O stands for item that is kept despite some problems, and √ stands for item that is kept with no problems

items as well, except for IN13PS_val independent variable that also had issues throughout the analysis phases. PS_TRUST construct has the second biggest impact on DP11swi dependent variable.

Three of five variables are deleted in PS_SERVQ construct, and the remainder variables are strong. PS_SERVQ construct has the smallest impact on DP11swi dependent variable.

1st order SEM SRW values are shown in Table 6.45.

Table 6.45 : SRWs of the first-order SEM model.

	Estimate
IN18PS_com <--- PS_TRUST	.789
IN17PS_com <--- PS_TRUST	.754
IN16PS_tru <--- PS_TRUST	.788
IN15PS_tru <--- PS_TRUST	.746
IN13PS_val <--- PS_TRUST	.599
IN12PS_val <--- PS_TRUST	.740
IN23PS_ser <--- PS_SERVQ	.835
IN22PS_ser <--- PS_SERVQ	.764
IN21PS_ser <--- PS_SERVQ	.692
IN10PS_sat <--- PS_SATSF	.892
IN09PS_sat <--- PS_SATSF	.892
DP11swi <--- PS_TRUST	-.212
DP11swi <--- PS_SERVQ	-.140
DP11swi <--- PS_SATSF	-.246

When SRW values of the second-order SEM model are examined thoroughly, it is seen that PUSH composite construct estimates DP11swi dependent variable successfully with a SRW value of -.510. Therefore, it is revealed that H17 cannot be rejected under these circumstances. PULL and MOORING composite constructs are eliminated from the second-order SEM model, as a result both H18 and H19 rejected. H20 and H21, which are the hypotheses related to moderating effects, cannot be tested as the . MOORING composite construct is eliminated from the second-order SEM model.

SRW values of the second-order SEM model are shown in Table 6.46.

Table 6.46 : SRWs of the second-order SEM model.

		Estimate
PS_TRUST	<--- PUSH	.988
PS_SERVQ	<--- PUSH	.781
PS_SBOND	<--- PUSH	.481
PS_SATSF	<--- PUSH	.817
IN19PS_pri	<--- PS_TRUST	.645
IN18PS_com	<--- PS_TRUST	.783
IN17PS_com	<--- PS_TRUST	.741
IN16PS_tru	<--- PS_TRUST	.797
IN15PS_tru	<--- PS_TRUST	.744
IN14PS_tru	<--- PS_TRUST	.775
IN13PS_val	<--- PS_TRUST	.601
IN12PS_val	<--- PS_TRUST	.750
IN28PS_seg	<--- PS_SERVQ	.633
IN27PS_seg	<--- PS_SERVQ	.643
IN23PS_ser	<--- PS_SERVQ	.670
IN22PS_ser	<--- PS_SERVQ	.687
IN21PS_ser	<--- PS_SERVQ	.619
IN26PS_sbo	<--- PS_SBOND	.673
IN25PS_sbo	<--- PS_SBOND	.868
IN24PS_sbo	<--- PS_SBOND	.696
IN10PS_sat	<--- PS_SATSF	.895
IN09PS_sat	<--- PS_SATSF	.888
DP11swi	<--- PUSH	-.510

PS_TRUST latent variable is the strongest estimator of PUSH composite construct. PS_SATSF is the second and PS_SERVQ is the third latent variable, and both are still strong. PS_SBOND, that was deleted at the first-order SEM, survived in the second-order SEM however is the weakest estimator of PUSH composite construct with a low SRW value.

IN28PS_seg and IN27PS_seg are kept as items of PS_SERVQ at 2nd order SEM and they are as successful as other PS_SERVQ items.

IN19PS_pri, which was excluded in 1st order SEM, is the weakest item of PS_SERVQ.

7. DISCUSSION

First interesting result of this study is that mooring and pull effects are insignificant for both models. They are eliminated at different phases of the study. Especially most of the mooring factors; variety seeking, subjective norms, and switching attitude, had initially low reliabilities and are the weakest factors together with influential triggers. The model after EFA treatment is shown in Figure 7.1.



Figure 7.1: Conceptual model after EFA treatment.

After CFA analysis phase, switching costs was the last factor standing representing moorings effects, and alternative attractiveness was the last factor representing pull effects; and both are eliminated at the 1st order SEM and 2nd order SEM.

Elimination of constructs is realized not only due to model fit or validity reasons; but also mergers at the EFA stage. Segment focus factor disappeared to merge with service quality. Value, trust, commitment, and price all combined to form a completely new construct. The merging of factors decreased the number of factors down to 11, 3 of which are completely new just after EFA, and that was the second prominent result (Figure 7.1).

What might have caused those mergers at the EFA stage that changed the initial model structure? First, the model of Bansal et al. (2005) was applied for auto-repair and hairstyling services, which represents credence and experience services (Bansal et al., 2005) and are not one to one matches with electricity supply services. Before anything else, it is a B2C sector. Our assumption stating that SME behaviours resemble individual behaviours might have worked to an extent; however differences were expected at the very beginning such as high rationality and awareness levels of SMEs in respect to individual consumers. In addition, discrete purchases are made at the auto-repair services and hairstyling sectors just like retail services, however electricity consumption results in a continuous a relationship that lasts until an incident comes up and makes the consumer consider supplier change (Jones & Sasser, 1995). On the other hand, relationship is more intense at the hairstyling sector compared to electricity supply where consumers are relatively indifferent to the supplier-consumer relationship (EY, 2011a).

Second, Bansal et al. (2005)'s model was tested in Canada. Despite boundaries are dissolving across different cultures and economies (Ger, 1999) that emerges a homogeneous global consumer culture (Cleveland & Laroche, 2007); globalization also empowers national identities (Ger, 1999). Therefore, Turkey's culture and its impact on consumer behaviour is another factor affecting the results of this study.

Third, another important reason can be the lack of awareness of the consumers about the liberalization. The lack of awareness, as emphasized by Kruglanski and Klar (1985), is simply the state of unconsciousness (Erdelyi, 1974). "Not every single bit of confident knowledge needs to be linked in a person's awareness with

other knowledge” (Kruglanski & Klar, 1985, p. 43), however “... the behavior is expected to be regulated at some level of awareness such that the relevance of new information can be noticed and taken into consideration” (Bamberg et al., 2003, p.177).

Clearly, a minimum level of awareness is necessary for behavioural change. However, there is a long path to arrive at the behavioural stage. The theory of planned action and the theory of reasoned action literature widely agree that the behaviour is influenced by the intention, the intention is influenced by the attitude, and the attitude is influenced by the belief (Madden et al., 1992; Mathieson, 1991; Ajzen, 1991). Awareness level of Turkish consumers might not be able to make it to the end of this path that is made up of belief, attitude, intention, and behavior, respectively. There is a possibility that factors, which are excluded from the model and are initially hypothesized to influence switching intention, might be just strong enough to influence switching attitude and not strong enough to have an impact on switching intention; at this stage of the market.

In the qualitative study, it is found that the awareness about the liberalization process in the electricity supply is not high among SMEs; subjects think that electricity can be procured from private and public companies while the fact is that it can be only procured from private companies. Quantitative study also gives a remarkable insight regarding awareness level of the Turkish SME customers. More than half of the respondents think that they procure electricity from the public company or a private distribution company, whereas the true answer would be the private incumbent or private independent supplier.

Another quantitative insight regarding market awareness is the prior switching behaviours of the consumers. It is seen that approximately 3 out of 4 SME consumers have never switched before and have no practical knowledge about switching based on self-experience.

Fourth, the current stage of the Turkish electricity industry life cycle maybe the cause of the ineffectiveness of Pull and Mooring factors. The stages of an industry's life cycle can be stated as follows: an early exploratory stage, an intermediate development stage, and a mature stage (Williamson, 1975). Primitive product design, low volume, and high degree of uncertainty are the main

characteristics of the development stage. Turkish electricity supply sector has exactly the same characteristics: (1) Presence of primitive tariffs that are structured based on discounts on the most recently announced regulated tariffs (2) low volume which has a theoretical market opening rate above 80% (the consumption volume of eligible customers) yet an actual market opening rate below 40% (the consumption volume of eligible customers who actually choose competitive tariffs) (Turkish Competition Authority, 2015) (3) uncertainty about when the eligibility limit will be set to zero and a number of topics that are mentioned by Turkish Competition Authority (2015).

In the industry life cycle literature, it can be found that several concepts such as innovation (Audretsch & Feldman, 1996; Koberg et al., 1996), technological change (Filson, 2001), entrepreneurial orientation (Lumpkin & Dess, 2001), and business strategy (McGahan et al., 2004) are shaped by the stage of the related industry's life cycle. Just like these concepts, switching behavior factors may also be shaped by the industry life cycle stage. It can be hypothesized that push factors are effective in the early stages of electricity supply business (as in Turkey), whereas pull and mooring factors step in later towards the maturity phase. A similar argument can be proposed for awareness concept as well: the higher the stage of the industry life cycle is, the higher the consumer awareness gets.

To sum up; those four facts related to the type of the sectors, the characteristics of the countries, low awareness levels, and the stage in the industry life cycle are thought to be the reasons behind merging and exclusion of factors. Switching literature, customer, and sector-specific facts are discussed for each factor as well in order to understand why factors are merged or eliminated during the analyses.

Alternative attractiveness. Pull factors initially included alternative attractiveness and influential triggers factors, which are excluded from the model throughout the analyses.

IN36PL_alt was adapted from Colgate et al. (2007) and Zhang et al. (2012)'s dimensions of alternative attractiveness. IN37PL_alt item adaptation is made based on Colgate et al. (2007) and Colgate and Lang (2001)'s studies. The sectors were banking and blogging services from different countries. Therefore, this might have created issues for alternative attractiveness construct in the first place.

In terms of the impact of low awareness levels; it can be said that consumers with low liberalization awareness do not know if there are any alternatives in the market. According to survey data, only 89 out of 366 (24.3%) customers are confident that there is an alternative to move to.

On top of the fact that there is a high ratio of consumers with low awareness in the sample population; consumers with reasonable awareness levels may also contribute to the ineffectiveness of alternative attractiveness factor. It is known that customer perceptions of energy suppliers are neutral at best and negative at worst (EY, 2011a). Consumers, even with high knowledge of alternatives, may think that alternatives are not any better. The total percentage of customers who think that there are alternatives which can be better; are only 18% percent of the entire sample population. This ratio has a potential influence on an inclination to the ineffectiveness of alternative attractiveness.

The presence of regulated tariffs might sometimes lead to strong consumer inertia and diluting competition (ACER & CEER, 2013). In Turkey, there is still a regulated tariff that consumers can choose as a last resort tariff, without any limitations. This does not only cause inertia among customers but also make them think that they are procuring electricity from the state company, leading to low levels of awareness about the liberalization.

Finally, search costs can be another potential reason for exclusion of alternative attractiveness. "In rather many cases the opportunity cost of time allocated to search for alternatives may outweigh the potential reduced cost in processing the information obtained via search" (EK & Soderholm, 2008, p.259). In other words, search costs may neutralize the effect of alternative attractiveness. In our sample population, only 1 out of 4 respondents are confident that the search costs are acceptable. In addition, only 35% of those confident respondents think that there are alternatives to move to, which results in a small percentage of 9% of the entire sample population who thinks that search costs are low and they can find alternatives if they attempt to search. The rest of the sample population ignores, with different intensities, the impact of alternatives; because they think that they are not worth searching.

Briefly, there are many factors that may lead to the neutralization of alternative attractiveness factor's impact on switching intention in Turkish electricity supply

market; which constitute the resultant effect of low awareness, high search costs perception, and the presence of the regulatory tariff.

Influential triggers. In the qualitative study, it was identified that subjects attach importance to face-to-face sales approaches by firms. However, the results are not parallel with the results of the qualitative study.

First item was adopted from the banking sector (Clemes et al., 2010) to address the effects of advertising and media. The second item was developed to address the face-to-face sales impact that was identified in the qualitative study. Even though the items had a good reliability together, they did not fit the model.

The reason of the exclusion of the first item is most probably the low level of media presence of energy companies. In a mature energy sector, a very big presence in media is expected like telecommunications and banking sector. However, there is almost no presence of energy companies, both in mass media and on the Internet, in respect to telecommunications and banking firms. Therefore, advertisements may have a neutral effect on switching intentions because they simply do not exist.

The reason of the exclusion of the second item is most probably the low level of door-to-door sales activities of the energy companies. As emphasized at the early sections of this study; SMEs "...are not the largest commercial consumers, nor do they fit neatly into residential segments" (Accenture, 2013, p.187) and "... in many cases have long been a 'neglected middle' that offer untapped potential" (Accenture, 2013, p.188). As stated by the Duke Energy CEO, Allen Bucknam, SMEs are underserved (Pvtech, 2015).

In Turkey case, electricity supplier companies targeted large consumers initially at the beginning of the market liberalization. SMEs are suppliers' lowest priority due to their consumption levels and fragmented structure. Electricity supplier companies have just recently started to focus on SMEs, after they relatively improved their operations for the high consumption consumers. However, small consumers, especially the 45% portion of this study's sample population that has monthly consumption bills lower than TRY 600, may not even be visited by the energy companies. This fact might be the reason why the second item of influential triggers is ineffective.

Attitude to switching. Switching attitude was a one-item factor that was adapted from Gamble et al. (2009)'s study conducted in the Swedish energy sector. In the EFA stage,

the item merged with one of the switching costs items, which was aimed to capture the perception of consumers about the difficulty of switching and adapted from studies of Gerpott and Mahmudova (2010) and Lewis and Soureli (2006), conducted in energy and banking sectors respectively. Therefore, the new construct included an attitude item and an attitudinal item of the switching cost factor.

When previous PPM model adaptation studies are examined, it is seen that attitude is only used in 1 out of 12 studies, which maybe due to the anticipated issues of the construct.

As emphasized at the beginning of this section; switching attitude may be at a level that cannot influence the switching intention due to low customer awareness. Thinking that 3 out of 4 respondents have never switched, in other words, they could not have reached the behaviour phase of the planned / reasoned action path, they may not even be at the intention phase of this path, neutralizing the attitude construct.

Subjective norms. The construct could not make it through any of the tests, including reliability test. It has its share of the problems mentioned at the beginning of this section: different sectors, different countries, low awareness, and early phase of industry life-cycle. Addressing the first two topics; it should be stated that items are adapted from studies of Bansal et al. (2005) and Zengyan et al. (2009), conducted in completely different countries and different sectors. Low awareness obviously has the potential to neutralize this factor's effect, however, unlike individual customers; firms' inclination to make rational decisions may lead to indifference to their immediate environment's thoughts or approval.

Switching costs. The exclusion of this construct is a remarkable result; as switching costs factor is widely used in the literature. All of the studies that adapted PPM model included this factor.

In this study; the construct lost one item to switching attitude and could not pass the model tests with its remainder items. Two of the remainder items address uncertainty costs and one of them aims to capture search costs. They were adapted from banking, energy, and hairstyling sectors, which were targeted by studies of Jones et al. (2000), Annala et al. (2013), Gerpott and Mahmudova (2010), and Beerli et al. (2004); therefore all of them are vulnerable to different country and different sector problems. In addition, planned / reasoned action path issue, derived from low awareness, may

also be applicable for switching costs. In other words, Turkish energy consumers today do not consider switching costs while developing their switching intentions.

Prior switching behavior. This one-item construct item was developed based on Bansal et al. (2005)'s study but designed to provide the maximum possible objectivity. The respondents were asked how many times they switched in the past. 3 out of 4 answered as "never switched". It is concluded that switching experience does not contribute to developing switching intention, positively or negatively. The reason behind that might be that consumers who switched before may not have any negative or positive experiences regarding switching process and the benefits they gain after switching. This can lead to the ineffectiveness of prior switching behavior on switching intention.

Variety seeking. Variety seeking is another construct that could not pass any of the phases of the analyses. Both of the items were adapted from Bansal et al. (2005). It is not surprising to identify that variety seeking is not influential on switching intention. First, no pull factors are validated by the model. This means that, other suppliers do not count in the switching decision, even for variety seekers. In addition, consumers mostly perceive electricity as a commodity. Electricity service does not have any variations in the current stage of electricity industry life-cycle. In Turkey, services that would help the variation perception are not currently present, such as green energy, bundled services or other innovative products. Therefore, it is an expected result that variety seekers do not differ when it comes to switching electricity suppliers.

Trust, commitment, value, and price perceptions. Trust, commitment, value, and one of two price perception factors merged to form a completely new construct that was temporarily named after the factor that has the highest loading, which is trust (Table 7.1).

Table 7.1: PS_TRUST items with SRWs in the 2nd order SEM.

IN16PS_tru	<---	PS_TRUST	0.797
IN18PS_com	<---	PS_TRUST	0.783
IN14PS_tru	<---	PS_TRUST	0.775
IN12PS_val	<---	PS_TRUST	0.750
IN15PS_tru	<---	PS_TRUST	0.744
IN17PS_com	<---	PS_TRUST	0.741
IN19PS_pri	<---	PS_TRUST	0.645
IN13PS_val	<---	PS_TRUST	0.601

Merger of trust and commitment are not surprising due to their proximity in the literature. As emphasized by Gustafsson et al. (2005), trust is a component of effective commitment (Garbarino & Johnson 1999; Morgan & Hunt 1994). Aydın & Özer (2005) make use of the forward-looking concept of commitment while defining trust, stating that customers should also believe in future positive outcomes to trust a brand. Trust, in some cases, handled as an antecedent of commitment (Barry, 2004) and in some cases, the opposite relation is put forward (Morgan & Hunt, 1994). Briefly, trust and commitment are interchanging factors in services marketing literature.

Value has also similar proximity with commitment. The calculative dimension of commitment has many attributes captured by perceived value (Barry, 2004). Woodruff (1997) defines value including future expectations and making it closer the concept of commitment. As a result, merging of value, commitment, and trust has a literature basis.

Value and price intersect with each other as well, based on the price and/or sacrifice dimension of the value. Value is handled in the literature as “perceived service quality relative to price” (Hallowell, 1996, p. 29). Price is replaced by the term sacrifice in some definitions (Bansal et al., 2005; Buzzell and Gale, 1987), yet a significant part of the sacrifice is price, especially in the current stage of Turkish energy sector. Consequently, these two items join together.

In other words; consumers do not differentiate commitment, trust, value, and price from each other. Price and value, which are perceived together, cannot convince consumers alone. They should co-exist with trust and commitment. When focus group studies are re-visited, it is seen that consumers are interested in price offers only if given by trusted suppliers. They also do not trust the companies that offer very big discounts. Therefore, it is clear that price and trust are always evaluated together by SME consumers, trust coming first.

To sum up; the better value / price, if offered from a trusted supplier, can lead to retention of the consumers. This construct is named as extended trust.

Service quality and segment focus. As shown in Figure 7.2, segment focus items are merged with service quality items to form a new construct. Segment focus items were excluded in the 1st order model, however they are included in the 2nd order model without problems.

Table 7.2: PS_SERVQ items with SRWs

IN22PS_ser	<---	PS_SERVQ	0.687
IN23PS_ser	<---	PS_SERVQ	0.670
IN27PS_seg	<---	PS_SERVQ	0.643
IN28PS_seg	<---	PS_SERVQ	0.633
IN21PS_ser	<---	PS_SERVQ	0.619

Segment focus basis was mainly provided from the migration literature. Items are adapted from Schertzer (2006), which were originally formed as dimensions of quality. Still, a discrimination was expected prior to EFA analysis. However, the items combined with service quality items. Therefore, it can confidently be said that these five items are measuring service quality.

Satisfaction. As discussed in the former sections, satisfaction is one of the earliest factors that is studied as a determinant of switching in the literature. It has more solid ground in respect to other factors, as it is the case in this study. It remained its solidity in every step of the analyses.

Social bonds. Social bonds factor is a contribution of this study. It is not validated by the first order model however it has a fit in with the second order model. Yet, it is the weakest factor influencing Push factors and has the least impact on switching intention.

8. CONCLUSION

In addition to the discussion regarding the reasons why mooring and pull effects turned out insignificant and some of the factors merged, important conclusions can be drawn. It should be noted that the conclusions mostly count for SME customers in an energy sector in its mid-liberalization phase. The situation of the market and its impact on the results are discussed in detail in previous sections.

8.1 Theoretical Implications of This Study

First, it can be concluded that mooring and pull factors are not effective in terms of affecting switching intention. Both 1st order and 2nd order models validate this deduction. In other words, consumers' switching decisions are not based on external factors, that is to say, neither the attributes related to the other suppliers nor the switching process itself.

Second, SME consumers are likely to begin assessing switching based on negative factors related to their current suppliers. In other words, push factors will most likely put switching into customers' agenda.

Third, extended trust, which is the name of the new factor composed of trust, commitment, value, and price; is the strongest component of the push construct. Satisfaction and service quality are the next two strongest components. While those three constructs have high SRWs, social bonds factor has a significantly low share of explaining push effects. It is even excluded in the first order model. Ultimately, it can be said that incidents regarding extended trust, service quality, and satisfaction regarding the current supplier may result in an evaluation of switching in the consumers' minds. On top of that, weak social bonds with the current supplier's employees, although to a lesser extent, may result in switching.

Fourth, the results appear as the opposite to Bansal et al. (2005)'s study. Mooring and pull effects are the strongest drivers of switching in Bansal et al. (2005)'s study

whereas they are completely excluded in this study, leaving push factors the only influencer of customer mobility.

As discussed in the previous section; sector type, country characteristics, customer awareness level, and the stage in the industry life cycle are thought to be affecting how research model factors influence switching. The schematization of this reasoning is shown in Figure 7.1.

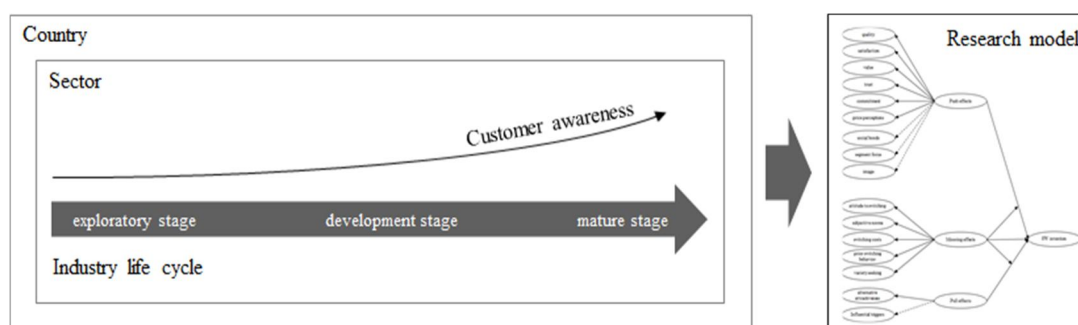


Figure 7.1: Influence of sector type, country characteristics, customer awareness level, and the industry life cycle stage on research model¹².

It is believed that as the industry life cycle move towards maturity, customer awareness increases. As both proceed together; pull and mooring constructs of the model step in, most probably former being earlier than the latter. Heuristically, it can be said that if the factors related to the target location are ineffective, than the factors that reside on the way to the target location are not even a matter of discussion. Therefore, it is expected that pull factors start being effective first, and only then mooring factors will be in customers' eyesight moving towards industry maturity.

Figure 7.1 also shows that the sector type and the country characteristics determine which factors are effective in the research model. As this conclusion can be derived to a certain point based on the previous studies, it is not easy to conclude how the factors are affected by country characteristics and sector type.

In conclusion, it is seen that SME customers evaluate switching only if they experience problems regarding their suppliers in a market in its exploratory stage. As the market move towards maturity, competitors' moves and mooring factors start to become effective respectively. Country characteristics and sector type are also thought to be influential on which pull/push/mooring factors are effective or not.

¹² Prepared by the researcher

8.2 Practical Implications of This Study

Practical implications are mostly for the energy market players and regulatory bodies. In a medium level liberalized market at its exploratory life cycle stage, focusing on “doing the basics right” seems to be the best choice for customer retention. In Turkey, the incumbent suppliers are in the information technologies [IT] and operational technologies [OT] transformation phase because their legacy systems do not meet today’s customers needs. In the meantime, they need to minimize the service incidents using the legacy systems in the best possible way. It is strongly recommended to focus on quick wins until new systems are up and running.

Advertisement campaigns are most probably helpful for mid / long term benefits. They have almost no impact on capturing new customers in the short term. Thus, it is strongly recommended to focus on creating a brand image with the commercials, instead of introducing services or tariffs. This will also help building trust, which is the most important factor as identified by this study for SME retention.

Employees’ bonding with the customers is also important for customer retention. It is recommended to assign customer representatives for key customers and establish a strong relationship to boost loyalty.

Accurate, timely, and transparent billing with flexible contracts adapted to specific needs are important for customer retention. Absence of these attributes of service quality may result in churn. In addition, customization of services for SMEs and their industries will also help customer retention.

One factor is not in direct control of incumbent suppliers. Customers expect adequate information about anticipated supply interruptions. Even though this is not the suppliers’ duty; customers’ perception is the opposite. Thus, the failure of the distribution company might result in customer loss for the incumbent retailer. It is strongly recommended that incumbent retailers take necessary measures to ensure that their sister distribution companies inform the customers accurately.

Finally, price competition without building trust, will hardly work. Therefore, offering better prices for current customers will not help keeping them if it is not bundled with trust. Therefore, every point that touches the customer, including word of mouth, should support company trust. Otherwise, churn will gear up and even best price offers will not prevent customers from leaving the company.

From a regulatory perspective, there are several steps to be taken. Currently, push factors are in force, that is to say, market-switching rates are dependent upon companies' failures. However, a healthy market environment should be dependent upon companies' good practices that create high mobility in the market. In order to provide this environment, mooring factors and pull factors should influence the switching decisions. To ensure this structure, it is recommended to increase the awareness of the customers about the liberalized market. In an environment where more than half of the customers think that electricity is supplied by the public company that doesn't exist or a private distribution company that is not permitted to supply, high switching rates cannot be expected. The awareness level can be increased by simply making the regulatory tariff obsolete and force customers to choose a competitive tariff. Certainly, this change should be realized at the end of a transition period where necessary structural changes are performed and customers are sufficiently informed about the new period.

Following the increase in the awareness levels, creating an easy switching process is proposed as a next step for the regulatory bodies. This will help lowering the barriers for the consumers and making pull factors important drivers of market switching activity. When pull factors are the most effective influencers of switching, energy companies would invest more on capturing customers that might result in a market with a high mobility. Again, this also requires infrastructure investment that will move the industry towards maturity.

Briefly, it is recommended that electricity suppliers (1) focus on customer retention by doing basics right, building trust, and investing in advertisements that build brand image in the exploratory stage of the industry, (2) continue their IT & OT investments to improve their customer experience for the development and maturity stages, (3) approach SMEs with sales representatives creating maximum proximity possible, (4) offer customized services to SMEs. Pushing the market towards maturity stage is recommended for the regulatory bodies by arranging the necessary regulations that ease switching, boost customer awareness, and complete/monitor related infrastructure investments.

9. LIMITATIONS AND FUTURE DIRECTIONS

There are important limitations of this study. CATI surveys are conducted, which limited the number of questions and items tested in the constructs. This resulted in testing the model in a low resolution and possible problems of capturing exact thoughts of the respondents. Face-to-face surveys covering all the items of the factors will help providing results that are more accurate.

Possibilities were limited to conduct a pre-test study. More robust items could be built that might have prevented loss or merger of some factors in the model. It is strongly recommended to perform a pre-test study to form sharper items and constructs in future studies.

The model is tested in a semi-liberalized energy sector, which resulted in ineffectiveness of some of the factors. A complementary study can be conducted in Turkish electricity market in its late liberalization stages. This study would help to have an understanding of how industry life cycle affects pull, push, and mooring factors. Another study can be conducted in another country in the same industry with the same life cycle stage to understand the effects of country characteristics on pull, push, and mooring factors.

Lastly, more factors may be extracted from the migration and services marketing literature and tested in the research model setting. Especially pull factors can be extended as there are only two factors, one of which is proposed by the research model. It is strongly believed that PPM model is a flexible and modular structure that can host and test most of the switching factors discussed in the literature accurately.

REFERENCES

- Aaker, J. L.** (1997). Dimensions of brand personality, *Journal of Marketing Research*, 34, No. 3, 347-356.
- Abdelrahman, O. A.** (2011). Consumer Search and Switching Behavior: Evidence from the Credit Card Industry.
- Accenture** (2013). The New Energy Consumer Handbook.
- Accenture** (2012). Achieving Workable Competition in Turkey's Electricity Exchange Markets.
- Agency for the Cooperation of Energy Regulators and Council of European Energy Regulators** (2013). *Annual Report on the Results of Monitoring the Internal Electricity and Natural Gas Markets in 2012*. Slovenia.
- Ajzen, I.** (1991). The theory of planned behavior. *Organizational behavior and human decision processes*, 50(2), 179-211. Chicago.
- Akkemik, K. A., & Oğuz, F.** (2011). Regulation, efficiency and equilibrium: A general equilibrium analysis of liberalization in the Turkish electricity market. *Energy*, 36(5), 3282-3292.
- Allison, P. D.** (2001). *Missing data* (Vol. 136). Sage publications.
- Anderson, J. C., & Gerbing, D. W.** (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological bulletin*, 103(3), 411.
- Anderson, J. C., & Narus, J. A.** (1990). A model of distributor firm and manufacturer firm working partnerships. *the Journal of Marketing*, 42-58.
- Annala, S., Viljainen, S., & Tuunanen, J.** (2013). Rationality of supplier switching in retail electricity markets. *International Journal of Energy Sector Management*, 7(4), 459-477.
- Antón, C., Camarero, C., & Carrero, M.** (2007). Analysing firms' failures as determinants of consumer switching intentions: The effect of moderating factors. *European Journal of Marketing*, 41(1/2), 135-158.
- Atiyas, I., Cetin, T., & Gulen, G.** (2012). Reforming Turkish energy markets: political economy, regulation and competition in the search for energy policy. *Springer Science & Business Media*.
- Audretsch, D. B., & Feldman, M. P.** (1996). Innovative clusters and the industry life cycle. *Review of industrial organization*, 11(2), 253-273.
- Australian Energy Regulator** (2012). State of the energy market. Melbourne.

- Aydin, S., & Özer, G.** (2004). The analysis of antecedents of customer loyalty in the Turkish mobile telecommunication market. *European Journal of Marketing*, 39(7/8), 910-925.
- Aydin, S., Özer, G., & Arasil, Ö.** (2005). Customer loyalty and the effect of switching costs as a moderator variable: A case in the Turkish mobile phone market. *Marketing Intelligence & Planning*, 23(1), 89-103.
- Babin, B., Boles, J. and Robin, D.** (2000). Representing the perceived ethical work climate among marketing employees. *Journal of the Academy of Marketing Science*, 28(3), 345-358.
- Babu, D.** (2014). Why Kings Leave Their Kingdom-A Study on Switching Behavior of Customers and Factors Influencing This Behavioural Trait. *International Journal of Management and Social Sciences Research* Volume 3, No. 4, 9-13
- Bagozzi, R. and Philips, L.** (1982). Representing and Testing Organisational Theories: A Holistic Construal. *Administrative Science Quarterly*, 459-489.
- Bagozzi, R. P. and Yi, Y.** (1988). On the evaluation of structural equation models. *Journal of the academy of marketing science*, 16(1), 74-94.
- Bagozzi, R., Yi, Y., Philips, L.** (1991). Assessing Construct Validity in Organisational Research. *Administrative Science Quarterly*, 421-458.
- Ball, D., Simões Coelho, P., & Machás, A.** (2004). The role of communication and trust in explaining customer loyalty: An extension to the ECSI model. *European Journal of Marketing*, 38(9/10), 1272-1293.
- Bamberg, S., Ajzen, I., & Schmidt, P.** (2003). Choice of travel mode in the theory of planned behavior: The roles of past behavior, habit, and reasoned action. *Basic and applied social psychology*, 25(3), 175-187.
- Bansal H. S.** (1997). *Service switching model: A model of customer switching behavior in the services industry* (Doctoral thesis). Queen's University Kingston.
- Bansal, H. S., & Taylor, S. F.** (1999). The service provider switching model (spsm) a model of consumer switching behavior in the services industry. *Journal of service Research*, 2(2), 200-218.
- Bansal, H. S., Taylor, S. F., & James, Y. S.** (2005). "Migrating" to new service providers: Toward a unifying framework of consumers' switching behaviors. *Journal of the Academy of Marketing Science*, 33(1), 96-115.
- Bartlett, M. S.** (1950). Tests of significance in factor analysis. *British Journal of statistical psychology*, 3(2), 77-85.
- Barry, J. M.** (2004). Factors driving relationship commitment in B2B services: the role of national culture, value, trust and bonds.
- Beerli, A., Martin, J. D., & Quintana, A.** (2004). A model of customer loyalty in the retail banking market. *European Journal of Marketing*, 38(1/2), 253-275.
- Bell, M.** (1980). Past mobility and spatial preferences for migration in East Africa.

- Bentler, P. M.** (1990). Comparative fit indexes in structural models. *Psychological bulletin*, 107(2), 238.
- Bentler, P. M., & Chou, C. P.** (1987). Practical issues in structural modeling. *Sociological Methods & Research*, 16(1), 78-117.
- Bettman, J. R. and Park, W.** (1980). Effects of prior knowledge and experience and phase of the choice process on consumer decision processes: a protocol analysis, *Journal of consumer research*, 234-248.
- Bitner, M. J.** (1990). Evaluating service encounters: the effects of physical surroundings and employee responses. *the Journal of Marketing*, 69-82.
- Bloemer, J., De Ruyter, K. O., & Wetzels, M.** (1999). Linking perceived service quality and service loyalty: a multi-dimensional perspective. *European Journal of Marketing*, 33(11/12), 1082-1106.
- Bogue, D. J.** (1969). Principles of demography. In *Principles of demography*. John Wiley and sons.
- Bolton, R. N., & Drew, J. H.** (1991). A multistage model of customers' assessments of service quality and value. *Journal of consumer research*, 375-384.
- Boyle, P., Halfacree, K. H., & Robinson, V.** (2014). *Exploring contemporary migration*. Routledge.
- Bozzo, C.** (2002). Understanding inertia in an industrial context. *Journal of Customer Behaviour*, 1(3), 335-355.
- Brennan, T. J.** (2007). Consumer preference not to choose: methodological and policy implications. *Energy policy*, 35(3), 1616-1627.
- Brown, L. A., & Moore, E. G.** (1970). The intra-urban migration process: a perspective. *Geografiska Annaler. Series B, Human Geography*, 52(1), 1-13.
- Brucks, M.** (1985). The effects of product class knowledge on information search behavior. *Journal of consumer research*, 1-16.
- Buttle, F., & Burton, J.** (2002). Does service failure influence customer loyalty?. *Journal of Consumer Behaviour*, 1(3), 217-227.
- Buzzell, R. D., & Gale, B. T.** (1987). *The PIMS principles: Linking strategy to performance*. Simon and Schuster.
- Chumpitaz Caceres, R., & Paparoidamis, N. G.** (2007). Service quality, relationship satisfaction, trust, commitment and business-to-business loyalty. *European journal of marketing*, 41(7/8), 836-867.
- Cadwallader, M. T.** (1992). *Migration and residential mobility: Macro and micro approaches*. Univ of Wisconsin Press.
- Camadan, E., & Kölmek, F.** (2013). A Critical Evaluation of Turkish Electricity Reform. *The Electricity Journal*, 26(1), 59-70.
- Carmines, E. & Zeller, R.** (1979) *Reliability and Validity Assessment* (Vol 17). Sage Publications, London.

- Chiu, H. C., Hsieh, Y. C., Li, Y. C., & Lee, M.** (2005). Relationship marketing and consumer switching behavior. *Journal of Business Research*, 58(12), 1681-1689.
- Chou, C. P., & Bentler, P. M.** (1995). Estimates and tests in structural equation modeling.
- Churchill, G. A. Jr.** (1979). A Paradigm for Developing Better Measures of Marketing Constructs. *Journal of Marketing Research*, 64-73.
- Churchill, G. A. and Iacobucci, D.** (2005). *Marketing Research: Methodological Foundations*. Thompson, South-Western
- Churchill, G. N., Ford, N., Walker, O.** (1974). Measuring the Job Satisfaction of Industrial Salesman. *Journal of Marketing Research*, 254-260.
- Clark, D. E., Knapp, T. A., & White, N. E.** (1996). Personal and Location-Specific Characteristics and Elderly Interstate Migration. *Growth and Change*, 27(3), 327-351.
- Clemes, M. D., Gan, C., & Zhang, D.** (2010). Customer switching behaviour in the Chinese retail banking industry. *International Journal of Bank Marketing*, 28(7), 519-546.
- Cleveland, M., & Laroche, M.** (2007). Acculturation to the global consumer culture: Scale development and research paradigm. *Journal of business research*, 60(3), 249-259.
- Colgate, M., & Hedge, R.** (2001). An investigation into the switching process in retail banking services. *International Journal of Bank Marketing*, 19(5), 201-212.
- Colgate, M., & Lang, B.** (2001). Switching barriers in consumer markets: an investigation of the financial services industry. *Journal of consumer marketing*, 18(4), 332-347.
- Colgate, M., Tong, V. T. U., Lee, C. K. C., & Farley, J. U.** (2007). Back from the brink: Why customers stay. *Journal of Service Research*, 9(3), 211-228.
- Comrey, A. L., & Lee, H. B.** (1973). A first course in factor analysis.
- Concettini, S., & Créti, A.** (2013). Liberalization of electricity retailing in Europe: coming back or going forth?
- Cronin Jr, J. J., & Taylor, S. A.** (1992). Measuring service quality: a reexamination and extension. *The journal of marketing*, 55-68.
- Cronin, J. J., Brady, M. K., & Hult, G. T. M.** (2000). Assessing the effects of quality, value, and customer satisfaction on consumer behavioral intentions in service environments. *Journal of retailing*, 76(2), 193-218.
- Curran, P. J., West, S. G., & Finch, J. F.** (1996). The robustness of test statistics to nonnormality and specification error in confirmatory factor analysis. *Psychological methods*, 1(1), 16.
- De Jong, G. F., & Fawcett, J. T.** (1981). Motivations for migration: an assessment and a value-expectancy research model.

- De Ruyter, K., Wetzels, M., & Bloemer, J.** (1998). On the relationship between perceived service quality, service loyalty and switching costs. *International Journal of Service Industry Management*, 9(5), 436-453.
- De Vaus, D.** (1996) *Survey in Social Research*, UCL Press, London.
- Defeuilley, C.** (2009). Retail competition in electricity markets. *Energy Policy*, 37(2), 377-386.
- Department of Energy & Climate Change** (2012). *Energy Retail Markets Comparability Study: A report for DECC*. London Economics, London.
- Desbarats, J.** (1983). Spatial choice and constraints on behavior. *Annals of the Association of American Geographers*, 73(3), 340-357.
- Diamantopoulos, A. and Siguaw, J.** (2000). *Introducing LISREL*, Sage Publications, London.
- Doll, W., Xia, W., Torkzadeh, G.** (1994). A Confirmatory Factor Analysis of the End-User Computing Satisfaction Instrument. *MIS Quarterly*, 453-461.
- Doney, P. M., & Cannon, J. P.** (1997). An examination of the nature of trust in buyer-seller relationships. *the Journal of Marketing*, 35-51.
- Du Toit, B. M.** (1990). Rural-urban Migration with Special Reference to the Third World: Theoretical and Empirical Perspectives. *Human Organization*, 49(4), 305-319.
- Dunning, T., & Freedman, D. A.** (2008). Modeling section effects. *Outhwaite, W. & Turner, S.(eds) Handbook of Social Science Methodology*. London: Sage.
- Dyen, I.** (1956). Language distribution and migration theory. *Language*, 611-626.
- Ek, K., & Söderholm, P.** (2008). Households' switching behavior between electricity suppliers in Sweden. *Utilities Policy*, 16(4), 254-261.
- Elektrik Üretim A. Ş. - Turkish Electricity Generation Company** (2013). Elektrik Üretim Sektör Raporu 2012.
- Enerji Piyasaları Düzenleme Kurumu – Turkish Energy Markets Regulatory Authority** (2012). Turkish Energy Market: An Investor's Guide.
- Erdelyi, M. H.** (1974). A new look at the new look: Perceptual defense and vigilance. *Psychological review*, 81(1), 1.
- Erdogdu, E.** (2010). Electricity Market Reform: Lessons for Developing Countries.
- Ergun & Gokmen** (2013). *Electricity regulation in Turkey: overview*. Multi-Jurisdictional Guide 2013, Energy and Natural Resources.
- Eshghi, A., Houghton, D., & Topi, H.** (2007). Determinants of customer loyalty in the wireless telecommunications industry. *Telecommunications policy*, 31(2), 93-106.
- European Commission Directorate - General for Health & Consumers** (2010). *Functioning of retail electricity markets for consumers in the European Union: Final Report*. ECME Consortium.

- European Regulators Group for Electricity & Gas** (2010). ERGEG 2010 Status Review of the Liberalisation and Implementation of the Energy Regulatory Framework. Bruxelles.
- EY** (2011a). The rise of smart customers - What consumers think.
- EY** (2011b). The rise of smart customers - What sector thinks.
- EY** (2014). Voice of the customer is getting louder.
- Filson, D.** (2001). The nature and effects of technological change over the industry life cycle. *Review of Economic Dynamics*, 4(2), 460-494.
- Finney, S. J. and Distefano, C.** (2006). Non-normal and categorical data in structural equation modeling. *Structural equation modeling: A second course*, 269-314.
- Finon, D., & Boroumand, R. H.** (2011). Electricity retail competition: from survival strategies to oligopolistic behaviors. *In Colloquium on Regulation of energy industries, Economic Center, IFP school (France) and Center for economic regulation, City University, Londres.*
- Fischer, P. A., & Malmberg, G.** (2001). Settled people don't move: On life course and (im-) mobility in Sweden. *International Journal of Population Geography*, 7(5), 357-371.
- Fornell, C., & Larcker, D. F.** (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of marketing research*, 39-50.
- Fornell, C.** (1992). A national customer satisfaction barometer: The Swedish experience. *the Journal of Marketing*, 6-21.
- Fredrickson, C., Heaton, T. B., Fuguitt, G. V., & Zuiches, J. J.** (1980). Residential preferences in a model of migration intentions. *Population and Environment*, 3(3-4), 280-297.
- Frontier Economics** (2011). *Competition and entry in the GB electricity retail market.* Frontier Economics Ltd.
- Fu, J. R.** (2011). Understanding career commitment of IT professionals: Perspectives of push-pull-mooring framework and investment model. *International Journal of Information Management*, 31(3), 279-293.
- Gamble, A., Juliusson, E. A., & Gärling, T.** (2009). Consumer attitudes towards switching supplier in three deregulated markets. *The Journal of Socio-Economics*, 38(5), 814-819.
- Ganesan, S.** (1994). Determinants of long-term orientation in buyer-seller relationships. *the Journal of Marketing*, 1-19.
- Ganesh, J., Arnold, M. J., & Reynolds, K. E.** (2000). Understanding the customer base of service providers: an examination of the differences between switchers and stayers. *Journal of marketing*, 64(3), 65-87.
- Garbarino, E., & Johnson, M. S.** (1999). The different roles of satisfaction, trust, and commitment in customer relationships. *the Journal of Marketing*, 70-87.
- Gardner, R. W.** (1981). Macrolevel influences on the migration decision process.

- Ger, G.** (1999). Localizing in the global village: Local firms competing in global markets. *California Management Review*, 41(4), 64.
- Gerbing, D. and Anderson, J.** (1988). An Updated Paradigm for Scale Development Incorporating Unidimensionality and Its Assessment. *Journal of Marketing Research*, 186-192.
- Gerpott, T. J., & Mahmudova, I.** (2010). Determinants of green electricity adoption among residential customers in Germany. *International Journal of Consumer Studies*, 34(4), 464-473.
- Gerpott, T. J., Rams, W., & Schindler, A.** (2001). Customer retention, loyalty, and satisfaction in the German mobile cellular telecommunications market. *Telecommunications policy*, 25(4), 249-269.
- Gerrard, P., & Barton Cunningham, J.** (2004). Consumer switching behavior in the Asian banking market. *Journal of Services Marketing*, 18(3), 215-223.
- Giulietti, M., Waterson, M. and Wildenbeest, M.** (2014). Estimation of search frictions in the British electricity market. Estimation of search frictions in the British electricity market. *The Journal of Industrial Economics*, 62(4), 555-590.
- Goldscheider, C.** (1971). Population, modernization, and social structure.
- Goldstein, S.** (1976). Facets of redistribution: research challenges and opportunities. *Demography*, 13(4), 423-434.
- Gorsuch, R.** (1983). Factor analysis Lawrence Erlbaum Associates. *Hillsdale, NJ*.
- Greenwood, M. J.** (1985). Human migration: Theory, models, and empirical studies. *Journal of regional Science*, 25(4), 521-544.
- Greenwood, M. J., Mueser, P. R., Plane, D. A., & Schlottmann, A. M.** (1991). New directions in migration research. *The Annals of Regional Science*, 25(4), 237-270.
- Gremler, D. D., & Brown, S. W.** (1996). Service loyalty: its nature, importance, and implications. *Advancing service quality: A global perspective*, 171-180.
- Grönroos, C.** (1984). A service quality model and its marketing implications. *European Journal of marketing*, 18(4), 36-44.
- Gustafsson, A., Johnson, M. D., & Roos, I.** (2005). The effects of customer satisfaction, relationship commitment dimensions, and triggers on customer retention. *Journal of marketing*, 69(4), 210-218.
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E. and Tatham, R. L.** (2006). Multivariate Data Analysis, Sixth edition. *New Jersey*.
- Hall, D., Thomas, S., & Corral, V.** (2009). Global experience with electricity liberalisation.
- Hallowell, R.** (1996). The relationships of customer satisfaction, customer loyalty, and profitability: an empirical study. *International journal of service industry management*, 7(4), 27-42.
- Han, S. L.** (1992). *Antecedents of buyer-seller long-term relationships: An exploratory model of structural bonding and social bonding* (Doctoral dissertation). Bell & Howell Information and Learning.

- Hartmann, P., & Ibáñez, V. A.** (2007). Managing customer loyalty in liberalized residential energy markets: The impact of energy branding. *Energy Policy*, 35(4), 2661-2672.
- Hattie, J.** (1985). Methodology review: assessing unidimensionality of tests and items. *Applied Psychological Measurement*, 9(2), 139-164.
- Heberle, R.** (1938). The Causes of Rural-Urban Migration a Survey of German Theories. *American Journal of Sociology*, 932-950.
- Hennig-Thurau, T., Langer, M. F., & Hansen, U.** (2001). Modeling and Managing Student Loyalty An Approach Based on the Concept of Relationship Quality. *Journal of Service Research*, 3(4), 331-344.
- Henson, R. K., & Roberts, J. K.** (2006). Use of exploratory factor analysis in published research common errors and some comment on improved practice. *Educational and Psychological measurement*, 66(3), 393-416.
- Hess, M., & Enric Ricart, J.** (2003). Managing customer switching costs: a framework for competing in the networked environment. *Management Research: Journal of the Iberoamerican Academy of Management*, 1(1), 93-110.
- Hogarty, K. Y., Hines, C. V., Kromrey, J. D., Ferron, J. M., & Mumford, K. R.** (2005). The quality of factor solutions in exploratory factor analysis: The influence of sample size, communality, and overdetermination. *Educational and Psychological Measurement*, 65(2), 202-226.
- Hou, A. C., Chern, C. C., Chen, H. G., & Chen, Y. C.** (2011). 'Migrating to a new virtual world': Exploring MMORPG switching through human migration theory. *Computers in Human Behavior*, 27(5), 1892-1903.
- Hox, J.** (1998). Multilevel modeling: When and why. In *Classification, data analysis, and data highways* (pp. 147-154). Springer Berlin Heidelberg.
- Hox, J. J., & Bechger, T. M.** (1998). An introduction to structural equation modelling. *Family Science Review*, 11(354-373).
- Hsieh, J. K., Hsieh, Y. C., Chiu, H. C., & Feng, Y. C.** (2012). Post-adoption switching behavior for online service substitutes: A perspective of the push-pull-mooring framework. *Computers in Human Behavior*, 28(5), 1912-1920.
- Huang, Y.** (2001). OPRA: A Cross-Cultural, Multiple-Item Scale for Measuring Organisational-Public Relationships. *Journal of Public Relations Research*, 13(1), 61-90.
- Huang, M. H., & Yu, S.** (1999). Are consumers inherently or situationally brand loyal?—A set intercorrelation account for conscious brand loyalty and nonconscious inertia. *Psychology & Marketing*, 16(6), 523-544.
- Hutcheson, G. D., & Sofroniou, N.** (1999). *The multivariate social scientist: Introductory statistics using generalized linear models*. Sage.
- Ibáñez, V. A., Hartmann, P., & Calvo, P. Z.** (2006). Antecedents of customer loyalty in residential energy markets: Service quality, satisfaction, trust and switching costs. *The Service Industries Journal*, 26(6), 633-650.

- International Energy Agency** (2011). Empowering customer choice in electricity markets.
- Jackson John A.** (1986). Migration in Aspects of Modern Sociology. *Social Processes. London and New York: Longman.*
- Johnston, R. J.** (1971). Resistance to migration and the mover/stayer dichotomy: aspects of kinship and population stability in an English rural area. *Geografiska Annaler. Series B. Human Geography*, 16-27.
- Jones, M. A.** (1998). Satisfaction and repurchase intentions in the service industry: the moderating influence of switching barriers.
- Jones, M. A., Mothersbaugh, D. L., & Beatty, S. E. (2000).** Switching barriers and repurchase intentions in services. *Journal of retailing*, 76(2), 259-274.
- Jones, T. O., & Sasser, W. E.** (1995). Why satisfied customers defect. *Harvard Business Review*, 73(6), 88.
- Joskow, P.** (2008). Lessons learned from electricity market liberalization. *The Energy Journal*, 29(2), 9-42.
- Jöreskog, K. and Sörbom, D.** (1993) LISREL 8: *Structural Equation Modelling with SIMPLIS Command Language*. Scientific Software.
- Kaiser, H.** (1974) An Index for Factorial Simplicity. *Psychometrika*, 39(1), 31-36.
- Karahan, H., & Toptas, M.** (2013). The effect of power distribution privatization on electricity prices in Turkey: Has liberalization served the purpose?. *Energy Policy*, 63, 614-621.
- Karan, M. B., & Kazdağlı, H.** (2011). The development of energy markets in Europe. In *Financial Aspects in Energy* (pp. 11-32). Springer Berlin Heidelberg.
- Keaveney, S. M.** (1995). Customer switching behavior in service industries: An exploratory study. *The Journal of Marketing*, 71-82.
- Keaveney, S. M., & Parthasarathy, M.** (2001). Customer switching behavior in online services: An exploratory study of the role of selected attitudinal, behavioral, and demographic factors. *Journal of the academy of marketing science*, 29(4), 374-390.
- Kessides, I. N.** (2012). The impacts of electricity sector reforms in developing countries. *The Electricity Journal*, 25(6), 79-88.
- Kim, H. S., & Yoon, C. H.** (2004). Determinants of subscriber churn and customer loyalty in the Korean mobile telephony market. *Telecommunications Policy*, 28(9), 751-765.
- Kim, H. W., Gupta, S., & Lee, S. H.** (2013). Examining the Effect of Online Switching Cost on Customers' Willingness to Pay More. *Asia Pacific Journal of Information Systems*, 23(1), 21-43.
- Kim J.** (2008). *An empirical analysis of consumers' switching decisions in the mobile service industry*. (Doctoral dissertation). University of Wisconsin-Madison.

- Kim, M. K., Park, M. C., & Jeong, D. H.** (2004). The effects of customer satisfaction and switching barrier on customer loyalty in Korean mobile telecommunication services. *Telecommunications policy*, 28(2), 145-159.
- Klemperer P.** (1986). *Markets with consumer switching costs*. (Doctoral dissertation). Stanford University.
- Klemperer, P.** (1995). Competition when consumers have switching costs: An overview with applications to industrial organization, macroeconomics, and international trade. *The Review of Economic Studies*, 62(4), 515-539.
- Koberg, C. S., Uhlenbruck, N., & Sarason, Y.** (1996). Facilitators of organizational innovation: The role of life-cycle stage. *Journal of business venturing*, 11(2), 133-149.
- Kruglanski, A. W., & Klar, Y.** (1985). Knowing what to do: on the epistemology of actions. In *Action Control* (pp. 41-60). Springer Berlin Heidelberg.
- Lages, L.** (2000). *Export Marketing Standardisation and Its Influence on Export Performance: A Structural Model Examination*. (Doctoral dissertation). University of Warwick.
- Lai, F., Griffin, M., & Babin, B. J.** (2009). How quality, value, image, and satisfaction create loyalty at a Chinese telecom. *Journal of Business Research*, 62(10), 980-986.
- Lai, J. Y., Debbarma, S., & Ulhas, K. R.** (2012). An empirical study of consumer switching behaviour towards mobile shopping: a Push–Pull–Mooring model. *International Journal of Mobile Communications*, 10(4), 386-404.
- Lam, R., & Burton, S.** (2006). SME banking loyalty (and disloyalty): a qualitative study in Hong Kong. *International Journal of Bank Marketing*, 24(1), 37-52.
- Lam, R., Burton, S., & Lo, H. P.** (2009). Customer tradeoffs between key determinants of SME banking loyalty. *International journal of bank marketing*, 27(6), 428-445.
- Lam, S. Y., Shankar, V., Erramilli, M. K., & Murthy, B.** (2004). Customer value, satisfaction, loyalty, and switching costs: an illustration from a business-to-business service context. *Journal of the Academy of Marketing Science*, 32(3), 293-311.
- Larsen, F. R.** (2013). Implications of electricity sector liberalization on marketing decisions.
- Lee, E. S.** (1966). A theory of migration. *Demography*, 3(1), 47-57.
- Lee, R., & Murphy, J.** (2005). From loyalty to switching: exploring the determinants in the transition. In *Proceedings of the Australia and New Zealand Marketing Academy Conference, Perth, Australia* (pp. 196-203).
- Lewis, B. R., & Soureli, M.** (2006). The antecedents of consumer loyalty in retail banking. *Journal of consumer Behaviour*, 5(1), 15-31.
- Lewis, P.E.** (2006). A Universal Indicator of Customer Switching Activity.

- Li, X. R., & Petrick, J. F.** (2008). Examining the antecedents of brand loyalty from an investment model perspective. *Journal of Travel Research*, 47(1), 25-34.
- Listyarini, O., Haryanto, J. O., & Siahaan, B. C.** (2009). The Adoption of Push-pull and Mooring Model for Small Industry in Indonesia.
- Little, R. J., & Rubin, D. B.** (2014). *Statistical analysis with missing data*. John Wiley & Sons.
- Littlechild, S.** (2014). *Promoting or restricting competition?: Regulation of the UK retail residential energy market since 2008* (No. 1441). Faculty of Economics, University of Cambridge.
- Litwin, M.** (1995) *How to measure survey reliability and validity* (Vol. 7). Sage Publications.
- London Economics** (2012). Energy Retail Markets Comparability Study.
- Longino, C. F.** (1992). The forest and the trees: micro-level considerations in the study of geographic mobility in old age. *Elderly migration and population redistribution*, 23-34.
- Lui S. M.** (2005). *Impacts of information technology commoditization: Selected studies from ubiquitous information services*. (Doctoral dissertation) Hong Kong University of Science and Technology.
- Lumpkin, G. T., & Dess, G. G.** (2001). Linking two dimensions of entrepreneurial orientation to firm performance: The moderating role of environment and industry life cycle. *Journal of business venturing*, 16(5), 429-451.
- Madden, T. J., Ellen, P. S., & Ajzen, I.** (1992). A comparison of the theory of planned behavior and the theory of reasoned action. *Personality and social psychology Bulletin*, 18(1), 3-9.
- Makwana K., Sharma N. and Arora S.** (2014). Factors Influencing Consumer Brand Switching Behavior in Telecommunication Industry: An Empirical Study. *Prestige e-Journal of Management & Research*, 1(1), 87-96.
- Malhotra, N. K., Kim, S. S., and Patil, A.** (2006). Common Method Variance in IS Research: A Comparison of Alternative Approaches and a Reanalysis of Past Research. *Management Science*, 52(12), 1865-1883.
- Massey, D. S., Arango, J., Hugo, G., Kouaouci, A., Pellegrino, A., & Taylor, J. E.** (1994). An evaluation of international migration theory: the North American case. *Population and development Review*, 699-751.
- Mathieson, K.** (1991). Predicting user intentions: comparing the technology acceptance model with the theory of planned behavior. *Information systems research*, 2(3), 173-191.
- Matthews, C. D., Moore, C. I., & Wright, M.** (2008). Why not switch? Switching costs and switching likelihood. In *13th Finsia and Melbourne Centre for Financial Studies Banking and Finance Conference, Melbourne, Australia* (pp. 29-30).
- McGahan, A. M., Argyres, N., & Baum, J. A.** (2004). Context, technology and strategy: Forging new perspectives on the industry life cycle. *Advances in Strategic Management*, 21, 1-24.

- McHugh, K. E., Hogan, T. D., & Happel, S. K.** (1995). Multiple Residence and Cyclical Migration: A Life Course Perspective. *The Professional Geographer*, 47(3), 251-267.
- Meyer, J. P., & Allen, N. J.** (1991). A three-component conceptualization of organizational commitment. *Human resource management review*, 1(1), 61-89.
- Mittal, B., & Lassar, W. M.** (1998). Why do customers switch? The dynamics of satisfaction versus loyalty. *Journal of services marketing*, 12(3), 177-194.
- Molinari, L. K., Abratt, R., & Dion, P.** (2008). Satisfaction, quality and value and effects on repurchase and positive word-of-mouth behavioral intentions in a B2B services context. *Journal of Services Marketing*, 22(5), 363-373.
- Moon, B.** (1995). Paradigms in migration research: exploring "moorings" as a schema. *Progress in Human Geography*, 19(4), 504-524.
- Moore, W. L. and Lehmann, D. R.**, 1980. Individual differences in search behavior for a nondurable, *Journal of Consumer Research*, 7, 296-307.
- Moorthy, S., Ratchford, B. T. and Talukdar, D.** (1997). Consumer information search revisited: theory and empirical analysis, *Journal of Consumer Research*, March, 23, 263-277.
- Morgan, R. M., & Hunt, S. D.** (1994). The commitment-trust theory of relationship marketing. *the journal of marketing*, 20-38.
- Mowday, R. T., Steers, R. M., Porter, L. W.** (1979). The Measurement of Organisational Commitment. *Journal of vocational Behavior*, 4, 224-247.
- Naumann, E., Haverila, M., Sajid Khan, M., & Williams, P.** (2010). Understanding the causes of defection among satisfied B2B service customers. *Journal of Marketing Management*, 26(9-10), 878-900.
- Ndebele, T., & Marsh, D.** (2013). Consumer choice of electricity supplier: Investigating preferences for attributes of electricity services. In *2013 Conference, August 28-30, 2013, Christchurch, New Zealand* (No. 160417). New Zealand Agricultural and Resource Economics Society.
- Newman, J. W. and Staelin, R.** (1971). Multivariate analysis of differences in buyer decision time, *Journal of Marketing Research*, 8, 192-198.
- Nimako, S. G., & Ntim, B. A.** (2013). Construct Specification and Misspecification within the Application of Push-Pull-Mooring Theory of Switching Behaviour. *Nature*, 1(5), 83-95.
- Nordic Energy Regulators** (2013). Nordic Market report 2013.
- CData-Nunnally, J. C., & Bernstein, I. H.** (1978). Psychometric Theory.
- Ofgem** (2013). State of the Market Assessment.
- Ofgem** (2008). Energy Supply Probe - Initial Findings Report.
- Oliver, R. L.** (1999). Whence consumer loyalty?. *the Journal of Marketing*, 33-44.

- Oliver, R. L., & Swan, J. E.** (1989). Consumer perceptions of interpersonal equity and satisfaction in transactions: a field survey approach. *The Journal of Marketing*, 21-35.
- Orr, J. M., Sackett, P. R., & Dubois, C. L.** (1991). Outlier detection and treatment in I/O psychology: A survey. *Personnel Psychology*, 44(3), 473.
- Pablo Maicas Lopez, J., Polo Redondo, Y., & Sese Olivan, F. J.** (2006). The impact of customer relationship characteristics on customer switching behavior: Differences between switchers and stayers. *Managing Service Quality: An International Journal*, 16(6), 556-574.
- Pakkanen, M. and Narva, T.** (2011). Functioning of the Electricity Market in Finland – The Customer's Point of View.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L.** (1988). Servqual. *Journal of retailing*, 64(1), 12-40.
- Patterson, P. G., & Spreng, R. A.** (1997). Modelling the relationship between perceived value, satisfaction and repurchase intentions in a business-to-business, services context: an empirical examination. *International Journal of service Industry management*, 8(5), 414-434.
- Paulssen, M., & Birk, M. M.** (2007). Satisfaction and repurchase behavior in a business-to-business setting: Investigating the moderating effect of manufacturer, company and demographic characteristics. *Industrial Marketing Management*, 36(7), 983-997.
- Payne, A., & Frow, P.** (1997). Relationship marketing: key issues for the utilities sector. *Journal of Marketing Management*, 13(5), 463-477.
- Pearson, K.** (1901). LIII. On lines and planes of closest fit to systems of points in space. *The London, Edinburgh, and Dublin Philosophical Magazine and Journal of Science*, 2(11), 559-572.
- Peter, P.** (1979) "Reliability: A Review of Psychometric Basics and Recent Marketing Practices", *Journal of Marketing Research*, 16(1), 6-17.
- Peter, P.** (1981) "Construct Validity: A Review of Basic Issues and Marketing Practices", *Journal of Marketing Research*, 18(2), 133-145.
- Pett, M. A., Lackey, N. R., & Sullivan, J. J.** (2003). Making sense of factor analysis.
- Pirzada, S. S., Nawaz, M., Javed, M. U., & Asab, M. Z.** (2014). Which Factors Influence the Customers Switching Behavior? (Evidence from the Customers of Banking Sector of Pakistan). *European Journal of Business and Management*, 6(11), 134-142.
- Pollitt, M.** (2007). Liberalisation and Regulation in Electricity Systems: How can we get the balance right?.
- Pollitt, M.** (2011). Energy Liberalisation in Historical Context. Economic Policy.
- Pond, R.** (2006). Liberalisation, privatisation and regulation in the UK electricity sector. *Working Lives Research Institute*.
- Porell, F. W.** (1982). INTERMETROPOLITAN MIGRATION AND QUALITY OF LIFE. *Journal of Regional Science*, 22(2), 137-158.

- Punj, G. N., & Staelin, R.** (1983). A model of consumer information search behavior for new automobiles. *Journal of Consumer Research*, 366-380.
- Rabindra, N., & Tooraj, J.** (2013). Caught Between Theory and Practice: Government, Market, and Regulatory Failure in Electricity Sector Reforms.
- Ranaweera, C., & Prabhu, J.** (2003). On the relative importance of customer satisfaction and trust as determinants of customer retention and positive word of mouth. *Journal of Targeting, Measurement and Analysis for marketing*, 12(1), 82-90.
- Rauyruen, P., & Miller, K. E.** (2007). Relationship quality as a predictor of B2B customer loyalty. *Journal of business research*, 60(1), 21-31.
- Ravenstein, E. G.** (1885). The laws of migration. *Journal of the Statistical Society of London*, 167-235.
- Richmond, A. H.** (1988). Sociological theories of international migration: the case of refugees. *Current Sociology*, 36(2), 7-25.
- Roos, I.** (1999). Switching processes in customer relationships. *Journal of Service Research*, 2(1), 68-85.
- Roos, I., & Gustafsson, A.** (2007). Understanding frequent switching patterns. *Journal of Service Research*, 10(1), 93-108.
- Rust, R. T., & Zahorik, A. J.** (1993). Customer satisfaction, customer retention, and market share. *Journal of retailing*, 69(2), 193-215.
- Schertzer S. M. B.** (2006). *The Influence of Quality on Business-to-Business (B2B)*. (Doctoral dissertation). University of Cincinnati.
- Sell, R. R., & DeJong, G. F.** (1978). Toward a motivational theory of migration decision making. *Journal of Population*, 1(4), 313-335.
- Sharma, N., & Patterson, P. G.** (2000). Switching costs, alternative attractiveness and experience as moderators of relationship commitment in professional, consumer services. *International journal of service industry management*, 11(5), 470-490.
- Shields, G. M., & Shields, M. P.** (1989). The emergence of migration theory and a suggested new direction. *Journal of Economic Surveys*, 3(4), 277-304.
- Sirdeshmukh, D., Singh, J., & Sabol, B.** (2002). Consumer trust, value, and loyalty in relational exchanges. *Journal of marketing*, 66(1), 15-37.
- Sizer, L. M., & Smith, E. A.** (1972). Toward an Integration of Migration and Location Theory.
- Speare, A.** (1974). Residential satisfaction as an intervening variable in residential mobility. *Demography*, 11(2), 173-188.
- Spearman, C.** (1904). General Intelligence, objectively determined and measured. *The American Journal of Psychology*, 15(2), 201-292.
- Srinivasan, N., & Ratchford, B. T.** (1991). An empirical test of a model of external search for automobiles. *Journal of Consumer research*, 233-242.

- Stank, T. P., Goldsby, T. J., & Vickery, S. K.** (1999). Effect of service supplier performance on satisfaction and loyalty of store managers in the fast food industry. *Journal of Operations Management*, 17(4), 429-447.
- Staňková, K., Olsder, G. J., & De Schutter, B.** (2010). On European electricity market liberalization: a game-theoretic approach. *INFOR: Information Systems and Operational Research*, 48(4), 267-280.
- Steenkamp, J. B. E., & Van Trijp, H. C.** (1991). The use of LISREL in validating marketing constructs. *International Journal of Research in marketing*, 8(4), 283-299.
- Stimson, R. J., & Minnery, J.** (1998). Why people move to the 'sun-belt': A case study of long-distance migration to the Gold Coast, Australia. *Urban Studies*, 35(2), 193-214.
- Roy, S., Tarafdar, M., Ragu-Nathan, T. S., & Marsillac, E.** (2012). The effect of misspecification of reflective and formative constructs in operations and manufacturing management research. *Electronic Journal of Business Research Methods*, 10(1), 34-52.
- Tabachnick, B. G. and Fidell, L. S.** (2007). Using Multivariate Statistics, (5 éd.)
- Taylor, S., & Todd, P. A.** (1995). Understanding information technology usage: A test of competing models. *Information systems research*, 6(2), 144-176.
- Texas Coalition for Affordable Power.** (2012). Deregulated electricity in Texas: A history of retail competition
- Thomas, J. S., Blattberg, R. C., & Fox, E. J.** (2004). Recapturing lost customers. *Journal of Marketing Research*, 41(1), 31-45.
- Treiblmaier, H., & Filzmoser, P.** (2010). Exploratory factor analysis revisited: How robust methods support the detection of hidden multivariate data structures in IS research. *Information & management*, 47(4), 197-207.
- Trlin, A. D.** (1976). Toward the Integration of Factors affecting Immigrant Intra-Urban Residential Patterns. *New Zealand Geographer*, 32(1), 56-89.
- Van Trijp, H. C., Hoyer, W. D., & Inman, J. J.** (1996). Why switch? Product category: level explanations for true variety-seeking behavior. *Journal of Marketing Research*, 281-292.
- Tukey, J. W.** (1977). Exploratory data analysis.
- Turkish Competition Authority - Rekabet Kurumu** (2015). Elektrik Toptan Satış ve Perakende Satış Sektör Araştırması.
- Uhlenberg, P.** (1973). Noneconomic Determinants of Nonmigration: Sociological Considerations for Migration Theory. *Rural Sociology*.
- VaasaETT** (2012a). European Residential Energy Price Report.
- VaasaETT** (2012b). World energy retail market rankings. Customer switching research project.

- Wallin Andreassen, T., & Lindestad, B.** (1998). Customer loyalty and complex services: The impact of corporate image on quality, customer satisfaction and loyalty for customers with varying degrees of service expertise. *International Journal of Service Industry Management*, 9(1), 7-23.
- Walmsley, D. J., Epps, W. R., & Duncan, C. J.** (1998). Migration to the New South Wales north coast 1986–1991: lifestyle motivated counterurbanisation. *Geoforum*, 29(1), 105-118.
- Walsh, G., Dinnie, K., & Wiedmann, K. P.** (2006). How do corporate reputation and customer satisfaction impact customer defection? A study of private energy customers in Germany. *Journal of Services Marketing*, 20(6), 412-420.
- Walsh, G., Groth, M., & Wiedmann, K. P.** (2005). An examination of consumers' motives to switch energy suppliers. *Journal of Marketing Management*, 21(3-4), 421-440.
- Waterson, M.** (2003). The role of consumers in competition and competition policy. *International Journal of Industrial Organization*, 21(2), 129-150.
- Watson, A., Viney, H., & Schomaker, P.** (2002). Consumer attitudes to utility products: a consumer behaviour perspective. *Marketing Intelligence & Planning*, 20(7), 394-404.
- Westbrook, R. A.** (1980). Intrapersonal affective influences on consumer satisfaction with products. *Journal of consumer research*, 49-54.
- White, L., & Yanamandram, V.** (2007). A model of customer retention of dissatisfied business services customers. *Managing Service Quality: An International Journal*, 17(3), 298-316.
- Williams, B., Brown, T., & Onsman, A.** (2012). Exploratory factor analysis: A five-step guide for novices. *Australasian Journal of Paramedicine*, 8(3), 1.
- Williamson, O. E.** (1975). Markets and hierarchies: antitrust analysis and implications. *New York: The Free Press. Chicago*
- Wilson, C. M., & Price, C. W.** (2010). Do consumers switch to the best supplier?. *Oxford Economic Papers*, gpq006.
- Wolpert, J.** (1966). Migration as an adjustment to environmental stress. *Journal of Social Issues*, 22(4), 92-102.
- Woodruff, Robert B.** (1997). Customer Value: the Next Source for Competitive Advantage. *Journal of the Academy of Marketing Science*. 25(2). 139-153.
- Xavier, P., & Ypsilanti, D.** (2008). Switching costs and consumer behaviour: implications for telecommunications regulation. *info*, 10(4), 13-29.
- Ye, C., & Potter, R.** (2011). The role of habit in post-adoption switching of personal information technologies: an empirical investigation. *Communications of the Association for Information Systems*, 28(1), 585-610.

- Zeelenberg, M., & Pieters, R.** (2004). Beyond valence in customer dissatisfaction: A review and new findings on behavioral responses to regret and disappointment in failed services. *Journal of business Research*, 57(4), 445-455.
- Zeithaml, V. A.** (1988). Consumer perceptions of price, quality, and value: a means-end model and synthesis of evidence. *The Journal of marketing*, 2-22.
- Zeithaml, V. A., Berry, L. L., & Parasuraman, A.** (1996a). The behavioral consequences of service quality. *the Journal of Marketing*, 31-46.
- Zeithaml, V. A., Bitner, M. J., & Gremler, D. D.** (1996b). *Services Marketing* McGraw Hill. New York.
- Zengyan, C., Yinping, Y., & Lim, J.** (2009). Cyber migration: An empirical investigation on factors that affect users' switch intentions in social networking sites. In *System Sciences, 2009. HICSS'09. 42nd Hawaii International Conference on* (pp. 1-11). IEEE.
- Zhang, K. Z., Cheung, C. M., & Lee, M. K.** (2012). Online service switching behavior: The case of blog service providers. *Journal of Electronic Commerce Research*, 13(3), 184-197.
- Zhang, K. Z., Cheung, C., Lee, M. K., & Chen, H.** (2008). Understanding the blog service switching in Hong Kong: an empirical investigation. In *Hawaii International Conference on System Sciences, Proceedings of the 41st Annual* (pp. 269-269). IEEE.
- Bloomberg Business** (2014). Traders Bet on \$0.42-a-Day Electricity Ending: Argentina Credit. [www.bloomberg.com](http://www.bloomberg.com/news/articles/2014-03-18/traders-bet-on-0-42-a-day-electricity-ending-argentina-credit). Retrieved: May 1, 2015, from <http://www.bloomberg.com/news/articles/2014-03-18/traders-bet-on-0-42-a-day-electricity-ending-argentina-credit>
- Costello, A. B., & Osborne, J. W.** (2011). Best practices in exploratory factor analysis: four recommendations for getting the most from your analysis. *Pract Assess Res Eval* 2005; 10. URL <http://pareonline.net/getvn.asp, 10, 7>.
- Enerji Enstitüsü** (2015). EPIAŞ resmi olarak kuruldu. www.enerjienstitusu.com. Retrieved: May 1, 2015, from <http://enerjienstitusu.com/2015/03/20/epias-resmi-olarak-kuruldu/>
- Enerji Piyasaları Düzenleme Kurumu – Turkish Energy Markets Regulatory Authority** (2004). Electricity Market Balancing and Settlement Regulation. www.epdk.org.tr. Retrieved: May 1, 2015, from <http://www.epdk.org.tr/index.php/elektrik-piyasasi/mevzuat?id=36>
- Japan Ministry of Economy, Trade and Industry** (2015). Electricity System Reform. www.meti.go.jp. Retrieved: May 1, 2015, from http://www.meti.go.jp/english/policy/energy_environment/electricity_system_reform/index.html.
- Küçük ve Orta Ölçekli İşletmeleri Geliştirme ve Destekleme İdaresi Başkanlığı - Small and Medium Enterprises Development Organization** (2012). www.kosgeb.org.tr. Retrieved: May 1, 2015, from <http://kosgeb.gov.tr/Pages/UI/Haberler.aspx?ref=606>.

- Monaco A.** (2011). Edison's Pearl Street Station Recognized With Milestone. [www.theinstitute.ieee.org](http://theinstitute.ieee.org/technology-focus/technology-history/edisons-pearl-street-station-recognized-with-milestone810). Retrieved: May 1, 2015, from <http://theinstitute.ieee.org/technology-focus/technology-history/edisons-pearl-street-station-recognized-with-milestone810>
- Official Gazette** (2013). Elektrik Piyasası Kanunu, Kanun No. 6446. www.resmigazete.gov.tr. Retrieved: May 1, 2015, from <http://www.resmigazete.gov.tr/eskiler/2013/03/20130330-14.htm>
- Official Gazette** (2015a). Elektrik Piyasası Dengeleme Ve Uzlaştırma Yönetmeliğinde Değişiklik Yapılmasına İlişkin Yönetmelik. www.resmigazete.gov.tr. Retrieved: May 1, 2015, from <http://www.resmigazete.gov.tr/eskiler/2015/03/20150328-7.htm>
- Official Gazette** (2015b). Enerji Piyasaları İşletme Anonim Şirketi Teşkilat Yapısı ve Çalışma Esasları Hakkında Yönetmelik. www.resmigazete.gov.tr. Retrieved: May 1, 2015, from <http://www.resmigazete.gov.tr/eskiler/2015/04/20150401-5.pdf>
- Prime Ministry Privatization Administration - Özelleştirme İdaresi Başkanlığı** (n. d.). www.oib.gov.tr. Retrieved: May 1, 2015, from <http://www.oib.gov.tr/tedas/tedas.htm>
- Pvtech** (2015). www.pvtech.org. Retrieved: May 1, 2015, from http://www.pvtech.org/news/duke_energy_to_acquire_us_installer_rec_solar_and_target_commercial_market
- The Wall Street Journal** (2014). Argentina Continues Fight With Utilities After Power Outages. www.wsj.com. Retrieved: May 1, 2015, from <http://www.wsj.com/articles/SB10001424052702303370904579298821233190310>
- Türkiye Araştırmacılar Derneği (Turkish Researchers' Association)** (2012). Sosyo Ekonomik Statü Lansman Toplantısı. www.tuad.org.tr. Retrieved: May 1, 2015, from <http://www.tuad.org.tr/?sayfa=projelerimiz>

APPENDICES

APPENDIX A: Tables

APPENDIX A

Table A.1 : Service quality revealed as a switching factor in the past literature.

		Independent constructs used in the previous literature similiar to "service quality"				
		service quality	product quality	relationship quality service quality	quality of teaching ¹³	call quality
Dependent constructs used in the previous literature	Switching attitude	B2C: Bansal (1997), Bansal and Taylor (1999)				
	Switching intention	B2C: Anton et al. (2007), Babu (2014) B2B & C: Zeithaml et. al. (1996a)				
	Switching decision		B2C: Kim (2008)			
	Switching behaviour	B2C: Clemes et al. (2010), Pirzada et al. (2014)				
	Behavioral intention	B2C: Cronin et al. (2000) B2B: Schertzer (2006)				
	Loyalty	B2C: De Ruyter et al. (1998), Mittal and Lassar (1998), Bloemer et al. (1999), Aydin and Ozer (2004), Lewis and Soureli (2006) B2B: Lam and Burton (2006), Caceres and Paparoidamis (2007)		B2B: Rauyruen & Miller (2007)	B2C: Hennig-Thurau et al. (2001)	B2C: Kim and Yoon (2004)
	Repurchase intentions	B2C: Cronin and Taylor (1992)				
	Intention to stay	B2B: Lam et al. (2009)				

Table A.2 : Service quality (service failure) revealed as a switching factor in the past literature.

		Independent constructs used in the previous literature similiar to "service quality" (service failure)			
		service failure	critical incident	reactional triggers	core service failure
Independent variables used in the previous literature	Switching intention		B2C: Anton et al. (2007)		
	Switching behaviour	B2C: Colgate and Hedge (2001), Gerrard and Cunningham (2004)		B2C: Roos and Gustafsson (2007)	B2C: Keaveney (1995)
	Loyalty	B2C: Buttle and Burton (2002)			

¹³ terms belong to education sector

Table A.3 : Service quality (service recovery) revealed as a switching factor in the past literature.

		Independent constructs used in the literature similiar to "service quality" (service recovery)		
		response in service failure	service encounter failures	service recovery
Independent variables used in the previous literature	Switching behaviour	B2C: Keaveney (1995)	B2C: Keaveney (1995)	B2C: Colgate and Hedge (2001), Colgate and Lang (2001)
	Loyalty			B2C: Buttle and Burton (2002)
	Repurchase intentions			B2B: White and Yanamandram (2007)
	Reasons to stay			B2C: Colgate et al. (2007)

Table A.4 : Service quality (breadth of services) revealed as a switching factor in the past literature.

		Independent constructs used in the literature similiar to "service quality" (breadth of services)				
		relationship breadth	number of subscriptions¹⁴	range of goods	value added services	service attributes (C)¹⁵
	Switching behaviour	B2C: Lopez et al. (2006)	B2C: Abdelrahmann (2011)	B2C: Roos (1999)	B2C: Makwana et al. (2014)	
	Loyalty					B2C: Lewis and Soureli (2006)
	Retention	B2C: Gustafsson et al. (2005)				

Table A.5 : Service quality (convenience) revealed as a switching factor in the past literature.

		Independent constructs used in the literature similiar to "service quality" (convenience)				
		inconvenience	service attributes (B)³	number of bank branches	distance	location
Independent variables used in the previous literature	Switching behaviour	B2C: Keaveney (1995), Gerrard and Cunningham (2004)		B2C: Pirzada et al. (2014)	B2C: Clemes et al. (2010)	B2C: Roos (1999)
	Loyalty		B2C: Lewis and Soureli (2006)			

¹⁴ terms belong to banking industry

¹⁵ Service attributes have measures covering a number of separate constructs representing (A)communication, (B)convenience, and (C)innovative products

Table A.6 : Satisfaction revealed as a switching factor in the past literature.

		Independent constructs used in the literature similiar to "satisfaction"		
		satisfaction	relationship quality satisfaction	relationship satisfaction
Independent variables used in the previous literature	Switching intention	B2C: Bansal (1997), Bansal and Taylor (1999), Walsh et al. (2005), Walsh et al. (2006)		
	Switching behaviour	B2C: Keaveney and Parthasarathy (2001) ¹⁶ , Kim and Yoon (2004)		
	Behavioral intention	B2C: Cronin et al. (2000)		
	Loyalty	B2C: Rust and Zahorik (1993), Jones and Sasser (1995), Gremler and Brown (1996), Mittal and Lassar (1998), Oliver (1999), Gerpott et al. (2001), Beerli et al. (2004), Buttle and Burton (2002), Hennig-Thurau et al. (2001), Ball et al. (2004), Kim et al. (2004), Aydin et al. (2005), Lewis and Soureli (2006), Eshghi et al. (2007), Li and Petrick (2008), Lai et al. (2009), Ibáñez et al. (2006), Hartmann and Ibanez (2007) B2B: Stank et al. (1999), Lam et al. (2004)	B2B: Rauyruen & Miller (2007)	B2B: Caceres and Paparoidamis (2007)
	Repurchase intentions	B2C: Cronin and Taylor (1992), Jones (1998) B2B: Patterson and Spreng (1997), Paulssen and Birk (2009)		
	Repurchase behavior	B2B: Molinari et al. (2008)		
	Retention	B2C: Ranaweera and Prabhu (2003), Gustafsson et al. (2005)		

Table A.7 : Value revealed as a switching factor in the past literature.

		Independent constructs used in the literature similiar to "value"	
		value	
Independent variables used in the previous literature	Behavioral intention	B2C: Cronin et al. (2000)	
	Loyalty	B2C: Buttle and Burton (2002), Sirdeshmukh et al. (2002), Chiu et al. (2004), Lewis and Soureli (2006), Lai et al. (2009) B2B: Lam et al. (2004)	
	Repurchase intentions	B2B: Patterson and Spreng (1997)	
	Repurchase behavior	B2B: Molinari et al. (2008)	

¹⁶ Authors don't directly mention the related construct as a factor, but group customers accordingly and identify their differences

Table A.8 : Trust revealed as a switching factor in the past literature.

		Independent constructs used in the literature similiar to "(low)trust"								
		trust	trust of supplier	trust of sales-person	brand trust	confidence	confidence benefits	reputation	ethical problems	relationship quality trust
Independent variables used in the previous literature	Switching behaviour							B2C: Clemes et al. (2010)	B2C: Keaveney (1995)	
	Loyalty	B2C: Sirdeshmukh et al. (2002), Ball et al. (2004), Aydin and Özer (2004), Aydin et al. (2005), Lewis and Soureli (2006), Ibáñez et al. (2006) B2B: Caceres and Paparoidamis (2007)			B2C: Hartmann and Ibanez (2007)		B2C: Hennig-Thurau et al. (2001)			B2C: Hennig-Thurau et al. (2001) B2B: Rauyruen & Miller (2007)
	Anticipated future interaction		B2B: Doney and Cannon (1997)	B2B: Doney and Cannon (1997)						
	Retention	B2C: Ranaweera and Prabhu (2003)								
	Reasons to stay					B2C: Colgate et al. (2007)				

Table A.9 : Commitment revealed as a switching factor in the past literature.

		Independent constructs used in the literature similiar to "commitment"		
		commitment	relationship quality emotional commitment	relationship quality commitment
Independent variables used in the previous literature	Switching intention	B2C: Anton et al. (2007)		
	Loyalty	B2C: Hennig-Thurau et al. (2001) B2B: Caceres and Paparoidamis (2007)	B2C: Hennig-Thurau et al. (2001)	B2B: Rauyruen & Miller (2007)
	Retention	B2C: Gustafsson et al. (2005)		

Table A.10 : Price revealed as a switching factor in the past literature.

		Independent constructs used in the literature similar to "price"						
		pricing	price changes	price	pricing problems	expected economic benefits	interest rate ¹⁷	service price
Independent variables used in the previous literature	Switching attitude					B2C: Gamble et al. (2009)		
	Switching intention		B2C: Anton et al. (2007)					
	Switching decision			B2C: Kim (2008)				
	Switching behaviour	B2C: Keaveney (1995), Gerrard and Cunningham (2004), Makwana et al. (2014)		B2C: Roos (1999), Thomas et al. (2004), Clemes et al. (2010)	B2C: Colgate and Hedge (2001)		B2C: Abdelrahmann (2011), Pirzada et al. (2014)	
	Loyalty			B2B: Naumann et al. (2010)				
	Retention							B2C: Gerpott et al. (2001)

¹⁷ terms belong to banking industry

Table A.11 : Attitude revealed as a switching factor in the past literature.

		Independent constructs used in the literature similar to "attitude towards switching"
		attitude towards switching
Independent variables used in the previous literature	Switching intention	B2C: Bansal (1997), Bansal and Taylor (1999)

Table A.12 : Subjective norms revealed as a switching factor in the past literature.

		Independent constructs used in the literature similar to "subjective norms"
		subjective norms
Independent variables used in the previous literature	Switching attitude	B2C: Bansal (1997), Bansal and Taylor (1999)
	Switching intention	B2C: Bansal (1997), Bansal and Taylor (1999)

Table A.13 : Switching costs revealed as a switching factor in the past literature.

		Independent constructs used in the literature similar to "switching costs"									
		switching costs	relationship investment (A) ¹⁸	investment in the relationship	time and effort	information search costs	duration of the introductory rate ¹⁹	apathy (A) ²⁰	negativity	inertia (A) ²¹	(lack of) number portability
Independent variables used in the previous literature	Switching attitude					B2C: Gamble et al. (2009)					
	Switching decision	B2C: Kim (2008)									
	Switching behaviour	B2C: Xavier and Ypsilanti (2008), Kim (2008), Matthews et al. (2008) ²² , Clemes et al. (2010)	B2C: Colgate and Lang (2001)				B2C: Abdel-rahmamn (2011)	B2C: Colgate and Lang (2001)	B2C: Colgate and Lang (2001)		
	Loyalty	B2C: Gremler and Brown (1996), De Ruyter et al. (1998), Beerli et al. (2004), Aydin and Özer (2004), Aydin et al. (2005), Ibáñez et al. (2006), Hartmann and Ibanez (2007) B2B: Lam et al. (2004)		B2C: Li and Petrick (2008)							
	Repurchase intentions	B2C: Jones et al. (2000) B2B: White and Yanamandram (2007)								B2B: White and Yanamandram (2007)	
	Retention	B2C: Hess and Ricard (2003)									B2C: Gerpott et al. (2001)
	Reasons to stay	B2C: Colgate et al. (2007)			B2C: Colgate et al. (2007)						

¹⁸ Relationship investment has two parts of measures; A relating to switching costs and B relating to social bonds

¹⁹ terms belong to banking industry

²⁰ Apathy has two measures; (A) relating to switching costs and (B) relating to attractiveness of alternatives

²¹ White and Yanamandram (2007) define two dimensions of inertia: "(A) Inertia as the outcome, the customer thinks that the alternatives are unattractive due to switching costs), (B) Inertia as a behavioural characteristic defined as "the customer is lazy, inactive, or passive"

²² Matthews et al. (2008) found out that "switching costs on the relationship between a person's desire to switch banks and the likelihood that they will actually do so", however in the table it is located under switching behaviour column for the sake of the presentation

Table A.14 : Prior switching revealed as a switching factor in the past literature.

		Independent constructs used in the literature similiar to "prior switching behaviour"			
		prior switching behavior	prior churn	relationship length	length of business relationship
Independent variables used in the previous literature	Switching behaviour	B2C: Thomas et al. (2004) ²³		B2C: Lopez et al. (2006)	
	Loyalty	B2C: Ganesh et al. (2000) ²⁴			B2B: Lam and Burton (2006)
	Retention		B2C: Gustafsson et al. (2005)		

Table A.15 : Variety seeking revealed as a switching factor in the past literature.

		Independent constructs used in the literature similiar to "variety seeking"	
		variation	inertia (B) ²⁵
Independent variables used in the previous literature	Switching behaviour	B2C: Roos (1999)	
	Repurchase intentions		B2B: White and Yanamandram (2007)

²³ Authors study the the probability of a firm reacquiring a customer according to the lapse duration

²⁴ Authors don't directly mention the related construct as a factor, but group customers accordingly and identify their differences

²⁵ White and Yanamandram (2007) define two dimensions of inertia: "(A) Inertia as the outcome, the customer thinks that the alternatives are unattractive due to switching costs), (B) Inertia as a behavioural characteristic defined as "the customer is lazy, inactive, or passive"

Table A.16 : Alternative attractiveness revealed as a switching factor in the past literature.

		Independent constructs used in the literature similiar to "alternative attractiveness"					
		alternatives	attractiveness of alternatives	quality of alternative options	attraction by competitors	better service	apathy (B) ²⁶
Independent variables used in the previous literature	Switching behaviour				B2C: Keaveney (1995)		B2C: Colgate and Lang (2001)
	Loyalty			B2C: Li and Petrick (2008)		B2B: Naumann et al. (2010)	
	Repurchase intentions		B2B: White and Yanamandram (2007)				
	Reasons to stay	B2C: Colgate et al. (2007)					

²⁶ Apathy has two measures; (A) relating to switching costs and (B) relating to attractiveness of alternatives

Table A.17 : Social bonds revealed as a switching factor in the past literature.

		Independent constructs used in the literature similiar to "social bonds"										
		social bonds	Inter-personal bonds	relational bonds	interpersonal relationships	emotional bonds	relationship investment (B) ²⁷	special treatment	special treatment benefits	social benefits	personnel	personal service benefit
Independent variables used in the previous literature	Switching intention			B2B: Lam et al. (2009)								
	Switching behaviour						B2C: Colgate and Lang (2001)					
	Loyalty		B2C: Gremler and Brown (1996)					B2C: Gremler and Brown (1996)	B2C: Hennig-Thurau et al. (2001)	B2C: Hennig-Thurau et al. (2001)	B2C: Roos (1999)	
	Repurchase intentions				B2B: White and Yanamandram (2007)							
	Retention											B2C: Gerpott et al. (2001)
	Reasons to stay	B2C: Colgate et al. (2007)				B2C: Colgate et al. (2007)						

Table A.18 : Image revealed as a switching factor in the past literature.

		Independent constructs used in the literature similiar to "image"			
		image	brand image	corporate image	image of competitors
Independent variables used in the previous literature	Loyalty	B2C: Lewis and Soureli (2006)	B2C: (Kim and Yoon (2004)	B2C: Aydin and Özer (2004)	B2C: Gerpott et al. (2001)

²⁷ Relationship investment has two parts of measures; A relating to switching costs and B relating to social bonds

Table A.19 : Segment focus revealed as a switching factor in the past literature.

		Independent constructs used in the literature similiar to "segment focus"	
		image - industry knowledge	image - customer focus and expertise
Independent variables used in the previous literature	Behavioral intention	B2B: Schertzer (2006)	B2B: Schertzer (2006)

Table A.20 : Influential triggers revealed as a switching factor in the past literature.

		Independent constructs used in the literature similiar to "influential triggers"	
		influential triggers	advertisement
Independent variables used in the previous literature	Switching behaviour	B2C: Roos and Gustafsson (2007)	B2C: Clemes et al. (2010)

Table A.21 : Items and constructs' responses to analyses.

			Observed Variable Name	EFA Factor Loadings	EFA	Reliability / Correlation	REL	CFA 1st order	CFA 1st	SEM 1st order	SEM 1st	CFA 2nd order	CFA 2nd	SEM 2nd order	SEM 2nd
			PS_TRUST	n/a	✓	0.902	✓	OK	✓	insig t	O	OK	✓	OK	✓
			PS_SERVQ	n/a	✓	0.814	✓	AVE: 0.466	O	item deleted	O	OK	✓	OK	✓
			PS_SBOND	n/a	✓	0.780	✓	OK	✓	low SRW	x	SMC: 0.232	O	OK	✓
			PS_SATISF	n/a	-	0.795	✓	OK	✓	OK	✓	OK	✓	OK	✓
			MO_SCOST	n/a	✓	0.633	✓	AVE: 0.384	O	low SRW	x	OK	✓	SRW: low, insig t	x
			MO_VARTY	n/a	✓	0.391	O	item deleted	O	item deleted	x	item deleted	x	-	-
			MO_SUBNO	n/a	✓	0.262	O	item deleted	O	item deleted	x	SRW: low	x	-	-
			MO_SWATT	n/a	✓	0.268	O	item deleted	O	item deleted	x	item deleted	x	-	-
			PL_INFTR	n/a	-	0.256	O	item deleted	O	item deleted	x	item deleted	x	-	-
			PL_ALTER	n/a	✓	0.746	✓	item deleted	O	item deleted	x	OK	✓	SRW: low, insig t	x
PUSH	Trust	PS_TRUST	IN16PS_tru	0.804	✓	n/a	✓	OK	✓	OK	✓	OK	✓	OK	✓
			IN18PS_com	0.803	✓	n/a	✓	OK	✓	OK	✓	OK	✓	OK	✓
			IN15PS_tru	0.767	✓	n/a	✓	OK	✓	OK	✓	OK	✓	OK	✓
			IN14PS_tru	0.761	✓	n/a	✓	OK	✓	rsd. cov.: high	x	OK	✓	OK	✓
			IN12PS_val	0.741	✓	n/a	✓	OK	✓	OK	✓	OK	✓	OK	✓
			IN17PS_com	0.725	✓	n/a	✓	OK	✓	OK	✓	OK	✓	OK	✓
			IN13PS_val	0.619	✓	n/a	✓	SMC: 0.364	O	OK	✓	SMC: 0.362	O	OK	✓
			IN19PS_pri	0.610	✓	n/a	✓	OK	✓	rsd. cov.: high	x	OK	✓	OK	✓
	Service Quality	PS_SERVQ	IN22PS_ser	0.738	✓	n/a	✓	OK	✓	OK	✓	OK	✓	OK	✓
			IN27PS_seg	0.697	✓	n/a	✓	SMC: 0.343	O	rsd. cov.: high	x	OK	✓	OK	✓
			IN28PS_seg	0.651	✓	n/a	✓	SMC: 0.310	O	rsd. cov.: high	x	SMC: 0.399	O	OK	✓
			IN23PS_ser	0.593	✓	n/a	✓	OK	✓	OK	✓	OK	✓	OK	✓
			IN21PS_ser	0.578	✓	n/a	✓	OK	✓	OK	✓	SMC: 0.383	O	OK	✓
	Social Bonds	PS_SBOND	IN24PS_sbo	0.831	✓	n/a	✓	OK	✓	cons. deleted	x	OK	✓	OK	✓
			IN25PS_sbo	0.829	✓	n/a	✓	OK	✓	cons. deleted	x	OK	✓	OK	✓
			IN26PS_sbo	0.631	✓	n/a	✓	OK	✓	cons. deleted	x	OK	✓	OK	✓
	Satisfaction	PS_SATSF	IN09PS_sat	n/a	-	n/a	✓	OK	✓	OK	✓	OK	✓	OK	✓
			IN10PS_sat	n/a	-	n/a	✓	OK	✓	OK	✓	OK	✓	OK	✓
MOORING	Switching Costs	MO_SCOST	IN33MO_swc	0.753	✓	n/a	✓	OK	✓	cons. deleted	x	OK	✓	cons. deleted	x
			IN31MO_swc	0.714	✓	n/a	✓	SMC: 0.386	O	cons. deleted	x	OK	✓	cons. deleted	x
			IN32MO_swc	0.692	✓	n/a	✓	SMC: 0.265	O	cons. deleted	x	SMC: 0.226	x	cons. deleted	x
	Variety Seeking	MO_VARTY	IN39MO_var	0.806	✓	n/a	O	SRW: low	x	-	-	SRW: low	x	-	-
			IN38MO_var	0.688	✓	n/a	O	OK	✓	low SRW	x	SRW: low	x	-	-
	Subjective Norms	MO_SUBNO	IN29MO_sub	0.731	✓	n/a	O	SRW: low	x	-	-	cons. deleted	x	-	-
			IN30MO_sub	0.694	✓	n/a	O	OK	✓	SMC: 0.017	x	cons. deleted	x	-	-
	Switching Attitude	MO_SWATT	IN35MO_swa	0.788	✓	n/a	O	OK	✓	SMC: 0.030	x	SRW: low	x	-	-
			IN34MO_swc	0.680	✓	n/a	O	SRW: low	x	-	-	SRW: low	x	-	-
	Prior Switching Behaviour	N/A	IN42MO_psw	n/a	-	n/a	-	rsd. cov.: high	x	-	-	SRW: low	x	-	-
PULL	Influential Triggers	PL_INFTR	IN40PL_inf	n/a	-	n/a	O	SRW: low	x	-	-	SRW: low	x	-	-
			IN41PL_inf	n/a	-	n/a	O	OK	✓	SRW: low	x	SRW: low	x	-	-
	Alternative Attractiveness	PL_ALTER	IN37PL_alt	0.912	✓	n/a	✓	OK	✓	SRW: low	x	OK	✓	cons. deleted	x
			IN36PL_alt	0.844	✓	n/a	✓	rsd. cov.: high	x	-	-	OK	✓	cons. deleted	x
N/A	N/A	N/A	IN20PS_pri	< 0.5	x	-	-	-	-	-	-	-	-	-	-

Table A.22 : SES groups (TÜAD, 2012).

		Primary School	Primary School	Middle School	High School - Normal	High School - Trade	Foundation	Open Education - Faculty	Open Education - Normal	Post
Major yielding person		Dropout	Graduate	Graduate	Graduate	Graduate	Degree	Graduate	Graduate	Graduate
If retired										
-	Retired - working	(It will be coded below depending on the previous work and SES will be assigned)								
-	Retired - unemployed	(SES will be taken 1 degree lower depending on the previous job, Graph 2 is not working, retired graph)								
Section A	Don't have a job with salary, unemployed									
1a	Unemployed - Currently not working - don't have side income / receiving subvention	E	E	D	D	D	C2	C2	C2	C2
1b	Unemployed - Currently not working - have regular side income	D	D	C2	C2	C2	C1	C1	C1	C1
2a	Housewife - don't have side income / receiving subvention	E	E	D	D	D	C2	C2	C2	C2
2b	Housewife - don't have side income - have regular side income	D	D	C2	C2	C2	C1	C1	C1	C1
3	Student (without a job salary)			D	C2	C2	C2	C2	C2	C2
Section B	Working with salary or payment									
4a	Labourer / Retainer - Working by piecework (irregular, from time to time)	E	D	D	C2	C2	C2	C1	C1	B
4b	Labourer / Retainer - Working regularly (Doing the same job unless special conditions)	D	C2	C2	C1	C1	C1	B	B	B
5	Workmaster / Qualified workman - Has workers working under his command	D	C2	C2	C1	C1	B	B	B	B
6	Civil servant who doesn't direct / Craft / Expert etc.	D	C2	C2	C1	C1	B	B	B	B
7	Director (with 1-5 employees)	C2	C1	C1	C1	C1	B	B	A	A
8	Director (with 6-10 employees)	C2	C1	C1	C1	B	B	B	A	A
9	Director (with 11-20 employees)	C1	C1	C1	B	B	B	A	A	A
10	Director (with more than 20 employees)	C1	C1	B	B	B	A	A	A	A
11	Military man (Military specialist, sergeant, officer, etc.)		C2	C2	C1	C1	B	B	A	A
12	Expert with payment, seniority and qualifications (lawyer, doctor, architect, engineer, academician, etc.)							A	A	A
Section C	Working for their own account - Independent business - Qualified expert									
13	Farmers (Working by themselves or with their families)	D	D	D	C2	C2	C2	C1	B	B
14	Street Hawker - Own job (including free lance), not giving service in a store	C2	C2	C2	C1	C1	C1	B	B	B
15	Working alone, store owner, tradesman (including taxi drivers)	C2	C1	C1	C1	C1	B	B	A	A
16	Business owner with 1-5 employees (trade, agriculture, manufacturing, services)	C2	C1	C1	B	B	B	B	A	A
17	Business owner with 6-10 employees (trade, agriculture, manufacturing, services)	C1	C1	C1	B	B	B	A	A	A
18	Business owner with 11-20 employees (trade, agriculture, manufacturing, services)	C1	C1	B	B	B	B	A	A	A
19	Business owner with more than 20 employees (trade, agriculture, manufacturing, services)	C1	C1	B	B	B	A	A	A	A
20	Freelance qualified expert (lawyer, engineer, financial advisor, doctor, pharmacist, etc.)							A	A	A

CURRICULUM VITAE



Name Surname: Anıl Savaş Kılıç
Place and Date of Birth: İstanbul, 30.11.1976
Address: Batikoy M Unlusoy C Onur S No:1 M.Sinan
B.Cekmece İstanbul
E-Mail: savaskilic@gmail.com
B.Sc.: Istanbul Technical University, Industrial Engineering
M.Sc.: Istanbul Technical University, Center for Advanced
Studies in Music

PUBLICATIONS/PRESENTATIONS ON THE THESIS

- **Kılıç A. S. and Uray N.,** 2015. Electricity Supplier Switching: A Conceptual Model Based on Migration Theory. *Journal of Business, Economics and Finance*, Vol. 4, Issue 3.

