



## A STRUCTURAL EQUATION MODEL FOR THE DESCRIPTION AND COMPARISON OF COMPLAINT BEHAVIOUR AFTER PURCHASING OF ELECTRONIC, FOOD AND TEXTILE PRODUCTS

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### ABSTRACT

This study was undertaken to investigate the complaint behaviour exhibited by university students due to dissatisfactions they experienced after purchasing electronic, food and textile products by using a proposed Structural Equation Modelling (SEM). For this purpose, measurements are performed on an interval scale by using the 5-point Likert in order to measure the agreement level of 329 university students on attitude and behaviour statements oriented at complaints. There are 7 factors in the research model including alienation related with complaint (ALN) and controllability (CON) as exogenous latent variables; perceived value of complaint (VAL), the “complaint will be successful” faith (LKH), complaint intention (CI), explicit complaint behaviour (ECB) and implicit complaint behaviour (ICB) as endogenous latent variables. In this study, the effect of alienation of students from the company they shop and of their belief in controllability of the company on general complaint attitudes and complaint behaviours are tested with 13 hypotheses for electronic, food and textile products separately, and the obtained results are compared. In relation to the three groups, research findings have shown the same results for certain hypotheses and different results for certain other hypotheses.

### JEL Classification:

M31, C39, I23

## 1. INTRODUCTION

Consumption is an ongoing behaviour since the existence of mankind. Consumers show purchase behaviour in every day with various requirements. As a result of this behaviour, a consumer will show displeasure when he thinks that the product he purchased does not meet his expectations and will exhibit his displeasure as complaint behaviour (Yi, 1990).

Research on consumer satisfaction and complaints began in the early 60s. Following the 90s, in particular, there has been a significant increase in the number of studies regarding this subject with the development and commencement of the “total quality management” concept which aims to resolve customer dissatisfaction (Yilmaz, 2004a, 2004b).

Today there is a limited tendency to understand consumer complaints despite the importance of listening and resolving consumer complaints. Several elements of consumer complaint behaviour including perceived cost (Richins, 1980), controllability (Folkes, 1984), likelihood of a successful complaint (Granbois et. al.,1977; Singh,1990), behaviour oriented at complaints (Bearden Mason, 1984; Singh and Wilkes, 1996), and environmental demographic diversity (Singh and Wilkes, 1991) have been attempted to determine consumer complaints in the marketing literature on consumer complaints. Hirschbman (1970) suggests that the complaint thought of consumers depends on the fact that behaviour oriented at complaints, perceived value of the complaint and the likelihood of a successful complaint are distinguished (Kim et. al., 2003; Akan and Kaynak, 2008). Bearden and Oliver (1985) found a significant relationship between the resolution of the complaints of consumers and their satisfactions. In his study, Cilly (1987) found a significant relationship between consumer complaints and repurchase. Singh and Wilkes (1996) tested with a multi-stage model personal factors that affect the behaviour and value of a complaint<sup>2</sup> which is expected to be based on consumer complaint behaviour. Keng and Liu (1997), in their study looked for a relationship between personal values and consumer complaints behaviour and revealed that the demographic and perceived personal values are related to consumer complaints and argued that income and education levels are notable effective factors.

The Technical Assistance Research Program has conducted research studies revealing that consumers who are satisfied with the handling of their complaints exhibit the same purchase behaviour with a higher tendency than those consumers with or without any complaints or those dissatisfied in any way (Berry and Parasuraman 1997). Stephens and Gwinner (1998) examined the consumer complaints behaviour as cognitive and affective processes in their study and developed a theoretical model. A study carried out by Nyer (2000) concluded that the complaint thought may lead to positive results in favour of consumers in the long term by revealing the reasons for dissatisfaction. Chiu et. al. (2001) investigated complaints about manufacturing defects in the experimental study conducted with their students and determined the perceived price and social class affect on consumer complaint behaviour. Mc Alister and Erffmeyer (2003) attempted to reveal the relationship between consumer dissatisfaction, consumer complaints and marketing failures in their studies. John et. al. (2003) has suggested that personal factors and personal attitudes affect the complaint behaviour and concluded that personality traits and attitude oriented at complaints affect complaint behaviour. Kim et. al. (2003) developed a model in order to examine the perceptual and behavioural effects on consumer complaint intention, by taking the consumer complaints intention as a dependent variable, and personal factors and former complaint experiences as independent variables, and investigated the variables affecting the complaint intention. Tükylmaz and Özkan (2003) examined the factors affecting consumer satisfaction in their study by taking into account the national customer satisfaction index (NCSI).

The main factors in the NCSI are customer expectations, perceived quality, and perceived value, whereas the indicators are customer complaints and customer loyalty. In a study undertaken by Yilmaz (2004b), it has been shown that the education level and income group affect the complaint behaviour, that a significant negative relationship exists between dissatisfaction and reaction and that reactions that occur are typically complaints directed at the company and return of a product.

Bell et. al. (2004) investigated the domestic market and customer complaint behaviour and examined the affect of domestic market relationships on the customer complaint behaviour in their study. Sujithamrak and Lam (2005) think that the complaint thought also provides quality service to consumers on a prospective basis as well as compensating the unjust treatment they are subjected to. Larivie'Re and Van den Poel (2005) investigated the period after consumer complaints and found in the study they conducted that effective consumers are more prone to complaint behaviour. They also concluded in the same study that the complaint behaviour is related to the rate of feedback received for the complaint, financial compensation and the last complaint behaviour.

Uzkurt (2007) mentioned that concepts such as customer value and satisfaction are concepts that are different but also related to each other in the study he conducted about the effects of customer value and satisfaction on after-purchase trends of customers. He found that the model which reveals indirect and more powerful effect of customer value on after-purchase trends of customers through customer satisfaction is more feasible than the model revealing the direct effect. Yilmaz et. al. (2007), in the study they carried out, modeled the various complaint behaviours which customers' exhibit following purchase.. The model was found to be meaningful and the complaint behaviours shown by the customers are taken as boycott, complaint to the company, seeking his rights through legal channels and seeking his rights by applying to the government.

Akan and Kaynak (2008), in the model they used, examined the effects of five variables (alienation, controllability, attitude oriented at complaints, perceived value of complaint and realizing the likelihood of successful complaint) affecting complaint thoughts of customers. Sun (2009) investigated behaviours exhibited by the customers in case of dissatisfaction following on-line purchase behaviour in his study. Lee et. al. (2010) conducted investigations on whether any relationship exists between purchase behaviour and complaint behaviour and found that there is a positive relationship between the two.

Özer et. al. (2010) specified and classified the reactions in case of dissatisfaction after purchase and compared this classification with those studies available in the current literature. As a result, it is seen that the classification was addressed as a similar and personal reaction, a complaint to the company and as a complaint to a third body. In our study, reactions following dissatisfaction after purchase, which is specified by Özer et. al. (2010), are used and these reactions are discussed in two aspects as "explicit" and "implicit". Burns and Bowling (2010), in the study they carried out, investigated the effect of affective tendencies and negative-positive perceptions of university students on consumer attitudes and behaviour. Satisfaction degrees and service quality perceptions of individuals who have positive emotions were found to be related with each other.

Gökdeniz et. al. (2011) investigated the factors affecting consumer satisfaction after complaint behaviour and concluded that consumer complaints should be evaluated successfully in order to eliminate consumer dissatisfaction, enable repurchase and prevent the adverse word of mouth communication behaviour.

To summarize the above-mentioned literature: Elements of consumer complaint intention and behaviours have been attempted in most studies. Singh and Wilkes (1996) are inadequate to explain the consumer complaints behaviour despite the fact they found the relationship between attitudes and perceptual variables with the complaint response. Most of the studies deal with complaint behaviour that could not be predicted by attitudes and perceptions. A moderator variable is needed to explain the complaint behaviour. This moderator variable is complaint intention. The effect of personal and perceptual attitudes towards complaints in complaint behaviour through complaint intention taken as the moderator variable has been investigated in this study by using a recommended SEM (Structural Equation Modeling).

## **2. METHOD AND MATERIAL**

### **2.1.The Aim of the Study**

Structural Equation Modeling (SEM) is a multi-variable statistical technique which uses a linear approach in order to resolve complex theoretical structures containing intangible facts (Çelik and Yılmaz, 2013). Intangible facts mean latent variables which are set forth via observed variables. SEM enables evaluating causal relationships between these latent variables and testing and developing the theoretical model put forward.

It is thought that this will shed light on research studies in the social sciences; in particular, since their theory is based on intangible structures it becomes very difficult to determine intangible concepts such as intelligence, motivation, emotion, attitude and the relationship between them. Therefore, the researcher must relate the latent variable with the observable variables at the point of default structure in order to define the latent variable functionally (Yılmaz, 2004b).

There are very few studies that explain this complex structure with SEM despite numerous studies in which attitudes and behaviours towards complaints are investigated in the literature. In this study, the complaint attitude and complaints have been explained with SEM.

One of the aims of this study is to determine the factors which effect complaint intention and behaviour of consumers who are university students following their purchase behaviour of electronic products, food and textile products and to investigate the effect of these factors on complaint intention and behaviour using a recommended SEM. Another aim of this study is to specify similarities and differences between complaint intention and behaviour following the purchase behaviour of electronic products, food and textile products.

Ajzen and Fishbein (1980) postulate that complaint intention and behavior can be predicted and explained by the attitude of a consumer. Firstly, the effect of personal attitudes (alienation and controllability) regarding complaints on general complaint attitudes (perceived value of complaint, the “complaint will be successful” faith) is investigated in this study. Subsequently, the effect of these general complaint attitudes on the complaint intention is studied and reflections of complaint intention on complaint behaviour are presented separately for electronic, food and textile products. In the final step, comparison is made for three different situations. Similarities and differences towards complaint intention and behaviours caused by attitudes exhibited by consumers where the concern is an electronic, food or textile product are investigated.

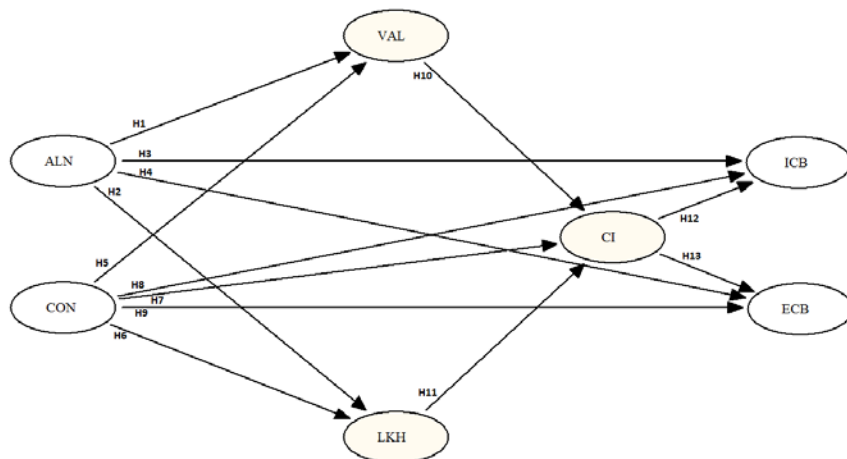
**2.2. Research Model and Hypotheses**

In this research, firstly, the effect of personal attitudes (alienation and controllability) regarding complaints on general complaint attitudes (perceived value of complaint, the “complaint will be successful” faith) is investigated, later the effect of these general complaint attitudes on the complaint intention is studied and, finally, the effect of the complaint intention on complaint behaviour is analyzed. The model proposed for this purpose is given in Figure 1.

There are 7 factors in the research model: Alienation related with the complaint (ALN), controllability (CON), perceived value of the complaint (VAL), and the “complaint will be successful” faith (LKH), the complaint intention (CI), the explicit complaint behaviour (ECB) and the implicit complaint behaviour (ICB).

A consumer who could not obtain the benefit expected from the company becomes alienated from that company and this alienation feeling may result in a negative attitude regarding the complaint and a perceived value of the complaint which is considerably low and having a weak “complaint will be successful” faith (Westbrook, 1980; Akan and Kaynak, 2008). Companies reassuring consumers about controls in case of dissatisfaction will positively affect the thought of consumers regarding complaints, the perceived value of the complaint and the likelihood of a successful complaint (Day and Landon, 1976).

**Figure 1: Research Model**



<sup>1</sup>Alienation: ALN; Controllability: CON; Perceived Value of Complaint: VAL; the “Complaint Will Be Successful” Faith: LKH; Complaint Intention: CI; Implicit Complaint Behaviour: ICB; Explicit Complaint Behaviour: ECB.

Alienation from these personal attitudes, available in the research, is the negative attitude exhibited by consumers towards the company which dissatisfies its consumers (Allison, 1978; Westbrook, 1980; Singh, 1989). Statements devoted to consumer alienation are measured mostly with consumer dissatisfaction and a greater dissatisfaction results in a negative exhibited attitude and/or behaviour (Westbrook, 1980, Kim et. al., 2003). In the light of this information, it can be argued that alienation from the company affects general complaint attitude and complaint behaviour.

$H_1$  = Perceived value of complaint decreases as consumer alienation increases.

$H_2$  = The “Complaint will be successful” faith decreases as consumer alienation increases.

$H_3$  = Implicit complaint behaviour increases as consumer alienation increases.

$H_4$  = Explicit complaint behaviour increases as consumer alienation increases.

Controllability from these personal attitudes, available in the research, can be defined as the belief that companies can predict and prevent dissatisfaction of consumers. Therefore, a consumer considers controllability at the heart of responsibility and feels confident in that his complaint will be successful and the perceived value of complaint will increase when he thinks the controllability is high (Kim et. al., 2003). In addition, it is assumed that controllability directly affects the complaint intention or behaviour. The following hypotheses have been developed in order to investigate this issue:

$H_5$  = Perceived value of complaint increases as controllability increases.

$H_6$  = The “complaint will be successful” faith increases as controllability increases.

$H_7$  = Complaint intention increases as controllability increases.

$H_8$  = Implicit complaint behaviour increases as controllability increases.

$H_9$  = Explicit complaint behaviour increases as controllability increases.

The perceived value of complaint can be defined as the belief in that complaint behaviour is worth the efforts of the consumer. In that case, the consumer who believes that the potential benefit of complaint behaviour is more than the cost he will be more prone to make a complaint (Kim et. al., 2003). We can consider the following hypothesis to test this issue:

$H_{10}$  = Complaint intention increases as perceived value of complaint increases.

The “complaint will be successful” faith can be defined as the belief of a consumer that the company will do what is necessary in order to eliminate that unjust treatment after the complaint. The company may return the product cost, replace the product, pay for the damage or apologize (Singh, 1990). A consumer will be more prone to make a complaint as long as he believes his complaint will be taken into account. On the other hand, he will remain silent considering that making a complaint is ineffective (Kim et. al., 2003). We can consider this issue with the following hypothesis:

$H_{11}$  = Complaint intention increases as the “complaint will be successful” faith increases.

It is assumed that a consumer with an intention of a complaint will exhibit his complaint behaviour by various behaviour patterns since the consumer will either display an action or will not act in order to conclude his complaint. Resolving the consumer complaints effectively increases consumer satisfaction and the re-purchase tendency. However, it can be seen that consumers who are subject to complaint dissatisfaction show much more displeasure than those making no complaints and exhibit much more adverse word-of-mouth communication (Pei-wu and Yan-qiu, 2006). Consumers show one (or both) of the explicit or implicit behaviour patterns in the event they take action. Seeking his rights by applying to the company, seeking his rights by legal proceedings and seeking his rights with the help of public institutions and organizations; all can be given as examples for the explicit complaint behaviour. Boycotting the company with no future shopping from there again and warning immediate surroundings against the company can be given as examples for the implicit complaint behaviour (Yilmaz, 2007). In this case, we can put forward the following hypothesis:

$H_{12}$  = Implicit complaint behaviour increases as complaint intention increases.

$H_{13}$  = Explicit complaint behaviour increases as complaint intention increases.

### *2.3. Sample and Data Collection Tool*

Participants (as samples) of the study are 329 persons who are were selected by the random sampling method from among the students of the Faculty of Arts and Sciences studying at Eskişehir Osmangazi University in 2011. This type of sampling is a random selection from any part of the universe by the researcher according to the determined sample size. To illustrate, random sampling is taking students as samples in the determined number by going to any faculty. The 14%, 16%, 24% and remaining 46% of students selected with this method consists of 1<sup>st</sup> year, 2<sup>nd</sup> year, 3<sup>rd</sup> year and 4<sup>th</sup> year students, respectively. At the same time, 60% of the students from the sample were female while 40% were male. This research data was collected with a survey method by means of face-to-face interviews with students. Survey questions were discussed with five specialist teams who worked on this topic before the collection of final data. Subsequently, a pilot study was conducted with 50 university students selected randomly in order to investigate the reliability of the statements contained in the survey. Statements which reduce reliability were either corrected or removed from the survey following the pilot study. Cronbach Alfa values calculated for the reliability of the survey are calculated within the interval of 0.60 – 0.76.

The first part of the survey consisted of 9 demographical questions devoted to obtaining knowledge on some of the personal characteristics of the participants and their experiences in their involvement of previous complaints. The second part consisted of 26 attitude statements related to consumer complaints. The final part consisted of 14 complaint behaviour statements exhibited by participants in the event of dissatisfaction. Measurements were performed on an interval scale by using the 5-point Likert (1. Strongly disagree, 2. Disagree 3. Neither agrees nor disagree, 4. Agree and 5. Strongly agree) in order to measure the agreement of participants on statements oriented at complaints and by using the 5-point Likert (1. Never, 2. Rarely 3. Sometimes 4. Often, 5. Always) in order to measure their behaviour in case of dissatisfaction. Statements towards attitudes consisted of concepts such as alienation from the company, the belief that the company might prevent the dissatisfaction (controllability), the “company will be successful” faith, perceived value of complaint and complaint intention. Statements towards behaviour include the concepts such as explicit and implicit complaints.

The measurement tool used by Kim et. al. (2003) and Akan and Kaynak (2008) is improved in order to measure attitudes and behaviour towards complaints and finalized by adding to this measurement tool the behaviour statements oriented at complaints. Questions towards previous complaint experiences given in the “demographical knowledge” part of the measurement tool used by Kim et. al. and Akan and Kaynak have been measured by Singh (1989, 1990); whereas statements belonging to the alienation sub-dimension (ALN1, ALN4, ALN5, ALN6) from attitude statement by Allison (1978) and Singh (1989,1990); statements belonging to the controllability sub-dimension (CON2, CON4) by Blodgett et. al. (1993), Folkes (1984), Singh and Wilkes (1996); statements belonging to the perceived value of complaint by (VAL1, VAL2) Bagozzi (1982), Richins (1980) and Singh (1989, 1990); statements belonging to the faith sub-dimension that the complaint will be successful by (LKH1, LKH2, LKH3) Day (1984), Richins (1983), Singh (1990); statements belonging to the complaint intention sub-dimension by (CI1, CI3) Day et. al. (1981) and Singh (1989) all with the help of the 5-point Likert scale were used in previous studies. Statements oriented at behaviour statements (e2, e4, e9, e12, e13) have been developed by making use of the studies of Singh (1989), Singh and Wilkes (1996) and Yilmaz (2007). Statements oriented at attitudes and behaviours are given in Table 1.

### **3. FINDINGS**

Whether the university students participating in the research exhibit complaint behaviour has been dealt with according to the education level of their parents, since it is considered that the attitudes and behaviours of individuals is are affected by the education level of their parents. When the education level of their mothers is investigated, it is seen that mothers of 41% of students participating in the research study graduated from secondary school whereas 38% graduated from primary school and 20.4% from undergraduate programs and the remaining from graduate programs. Whereas when the education level of their fathers is investigated, it is seen that the fathers of 42.2% of students participating in the research study graduated from secondary school, 38% from primary school and 17% from undergraduate programs and the remaining from graduate programs.



Each of the electronic, food and textile products were investigated for the research model given in Figure 1. The Confirmatory Factor Analysis (CFA) was used to determine whether measurement models containing each sub-dimension are significant or not by applying the LISREL 8.72 software package. It was found that the measurement models are significant with the help of the results. Subsequently, compliance of the complete model was evaluated for each separate case, with the help of the Fit Index.

A path diagram is drawn by using the LISREL 8.72 software package in order to investigate the predicted relationships with the hypotheses and the Maximum Likelihood method was used to predict the structural parameters. The path diagram of the model is given in Figure 3. The LISREL software package gives the results of analysis as standardized and non-standardized coefficients. In this study, standardized coefficients are used for ease of interpretation. Fit index values regarding compliance of the model are given in Table 1 for electronic, food and textile products. It can be seen that the assumed model is within the acceptable limits according to these results.

**Table 1: Standard Fit Index and Fit Values of the Proposed Model**

Fit Index	Good Fit	Acceptable Fit	Model 1 (Electronic)	Model 2 (Food)	Model 3 (Textile)
$\chi^2$	-	-	281.59 (df=120)	417.05 (df=120)	279.31 (df=120)
$\chi^2/df$	$0 \leq \chi^2/df \leq 2$	$2 \leq \chi^2/df \leq 3$	2.3466	3.4754	2.3276
RMSEA	$0 \leq RMSEA \leq 0.05$	$0.05 \leq RMSEA \leq 0.10$	0.064	0.087	0.079
GFI	$0.95 \leq GFI \leq 1.00$	$0.90 \leq GFI \leq 0.95$	0.91	0.88	0.90
AGFI	$0.90 \leq AGFI \leq 1.00$	$0.85 \leq AGFI \leq 0.90$	0.88	0.82	0.86
SRMR	$0 \leq SRMR \leq 0.05$	$0.05 \leq SRMR \leq 0.10$	0.067	0.079	0.076

(See Schermelleh-Engel et. al., (2003) for Fit Index.)

Chi-square value related to the compliance of the research model has been calculated as 281.59 (df=120,  $p < 0.001$ ) for electronic products, 417.05 (df=120,  $p < 0.001$ ) for food products and 279.31 (df=120,  $p < 0.001$ ) for textile products. As the chi-square value calculated for compliance of the model may result in making wrong decisions as it is affected from the size of the sampling volume and the number of variables, the

compliance of the model is determined by using the  $\chi^2/df$  index, instead of the value in structural equation modeling (Schermelleh-Engel et. al., 2003).

The  $\chi^2/df$  value has been found as 2.3466 for electronic products, 3.4754 for food products and 2.3276 for textile products in this study. These values are within the limits of "Acceptable Fit" for electronic products and food products. Values are calculated from other Fit Indexes for electronic, food and textile products and found to be, respectively: RMSEA 0.064, 0.087 and 0.079 (90% confidence interval 0.054 – 0.074); GFI 0.91, 0.88 and 0.90, AGFI 0.88, 0.82 and 0.86. These values show that the research model is acceptable for electronic and textile products whereas not acceptable for food products. SRMR values has been calculated as 0.067, 0.079 and 0.076 for electronic, food and textile products, respectively. These values indicate that the model is acceptable for all types of products.

Complaint behaviour has been discussed in two dimensions such as explicit and implicit complaint behaviour in the model. Findings obtained from the study supports the fact that such a distinction should be considered.

The "alienation from company" factor affects the perceived value of complaint in the positive direction and the "complaint will be successful" faith in the negative way. Whereas the controllability factor effects the "complaint will be successful" faith in the positive direction it does not affect the perceived value of complaint when results relating to electronic products are interpreted in summary.

In addition, the complaint intention factor is affected from the "complaint will be successful" faith even though the controllability factor is not affected by the perceived value of the complaint.

It can be observed that the implicit complaint factor is directly affected by the alienation factor and, to the contrary, it is not directly affected by the controllability factor when factors affecting the complaint behavior is analyzed. Also, we note that the implicit complaint behaviour is not affected from the complaint intention factor. It became evident that the explicit complaint factor is not directly affected by the alienation and the controllability factors but affected from the complaint intention factor.

It can be seen that the "Alienation (ALN)" latent variable is affected from four matters when the path diagram of electronic products is investigated. There are two matters in the "Controllability (CON)" dependent variable. The independent variable "Companies might prevent consumer dissatisfactions that are likely to occur in the future by taking into account the consumer complaints (CON4.E)" is noteworthy with a coefficient of 0.77 among these matters. The matter "If I believed that companies take my complaint into account they would provide me much better service in the future and I would make complaints about the company (VAL1.E)" which takes the maximum value from among the matters affecting the "perceived value of complaint (VAL)" variable is quite remarkable with a coefficient of 0.88. The coefficient of the matter "When I complained about a situation that did not satisfy me, companies will provide much better service in the future and all consumers will also benefit from this (LKH2.E)," which takes the maximum value among the matters those affecting the " " complaint will be successful" faith (LKH)" variable is found to be 0.93. "Complaint intention (CI) of an individual" is affected from two matters, whereas "Implicit Complaint Behaviour (ICB)" is affected from 3 matters and "Explicit Complaint Behaviour (ECB)" from 2 matters.

The most striking result among these is that ECB is affected by the matter, "I pass my complaints related to dissatisfactions to the consumer advisory service of the company (e.4)" with a coefficient of 0.93.

The factor "Alienation from company" affects the perceived value of the complaint in the positive direction whereas, the "complaint will be successful" faith in the negative direction for food products similar to the electronic products when results related with the food products are interpreted in summary. The controllability factor affects the perceived value of the complaint positively whereas it does not affect the "complaint will be successful" faith contrary to the results obtained for electronic products. The complaint intention factor is affected from the perceived value of the complaint, the "complaint will be successful" faith and the controllability factor.

It is observed that the implicit complaint behaviour is directly affected by the alienation factor. On the other hand, it is not directly affected by the controllability factors when the factors affecting the complaint behaviour are analyzed. The implicit complaint factor is also affected by the complaint intention factor for the food products in contrast to the electronic products. On the other hand, it has been found that the explicit complaint behaviour is affected directly by the alienation factor, whereas it is not directly affected by the controllability factors similar to the implicit complaint behaviour. Similarly, the explicit complaint behaviour is affected from the complaint intention factor. These findings show that the explicit and implicit behaviours lead to similar results in the case of food products in contrast to electronic products.

The "Alienation (ALN)" latent variable is affected by four matters when the path diagram related with food products is analyzed. There are two matters for the dependent variable "Controllability (CON)". The independent variable, "If the companies become careful, they might prevent dissatisfaction of the consumers" draws attention among these matters with a coefficient of 0.88. The matter, "If I believed that the companies take my complaint into account and they would provide me much better service in the future, I would make complaints about the company" which takes the maximum value among the matters those affecting the "perceived value of complaint (VAL)" variable is quite remarkable with a coefficient of 0.93. It has been found that the effect of this matter on the "perceived value of complaint" variable is also quite considerable for the electronic products. The matter, "When I complained about a situation that did not satisfy me, companies will provide much better service in the future and all consumers will also get benefit from this (LKH2.E)" takes the maximum value among the matters those affecting the "complaint will be successful" faith (LKH)" variable for the food products similar to the electronic products and the coefficient of this matter was found to be 0.93. The "Complaint intention (CI)" variable is affected from two matters, whereas the "Implicit Complaint Behaviour (ICB)" from 3 matters and the "Explicit Complaint Behaviour (ECB)" from 2 matters.

In summary, the factor "Alienation from company" affects the perceived value of the complaint in the positive direction, whereas the "complaint will be successful" faith in the negative direction and the controllability factor affects the "complaint will be successful" faith and the perceived value of the complaint in the positive direction for textile products similar to the electronic and food products when results related to the textile products are interpreted in summary.

It was found that the controllability factor does not affect the “complaint will be successful” faith for the food products, whereas it does not affect the perceived value of the complaint for the electronic products. The complaint intention factor is not affected from the perceived value of the complaint similar with the electronic products even though it is affected by the “complaint will be successful” faith and the controllability factor.

It is observed that the implicit complaint behaviour is directly affected from the alienation factor similar to the electronic products and food products, whereas it is not directly affected by the controllability factors when the factors affecting the complaint behaviour are analyzed. The implicit complaint factor is also not affected by the complaint intention factor similar to electronic products. The implicit complaint behaviour was found to be affected by the complaint intention factor in the case of food products. It can be seen that the explicit complaint factor is directly affected by the alienation factor while not directly affected by the controllability factors similar with the food products. The explicit complaint behaviour is also affected from the complaint intention factor similar to electronic and food products.

The “Alienation (ALN)” latent variable is affected by four matters when the path diagram related to textile products is analyzed. The dependent variable “Controllability (CON)” consists of the matter, “Companies might prevent consumer dissatisfactions that might occur in the future by taking consumer dissatisfactions into account”. The matter, “If I believed that the companies take my complaint into account and they would provide me much better service in the future and I would make complaints about the company” constitutes the variable “perceived value of complaint (VAL)”. The matter, “When I complained about a situation that did not satisfy me, companies will provide me much better service in the future and all consumers will also benefit from this” takes the maximum value from among the matters those affecting the “ “complaint will be successful” faith (LKH)” variable with a coefficient found to be 0.86. The “Complaint Intention (CI) of an individual” variable is affected from two matters, whereas the “Implicit Complaint Behaviour (ICB)” from 3 matters and the “Explicit Complaint Behaviour (ECB)” from 2 matters.

Standard weights predicted by the Maximum Likelihood Method are given in Appendix 1 for the electronic, food and textile products related to the research model.

The “t” values of the hypotheses for the research model obtained for electronic, food and textile products and whether the hypotheses are supported or not are given in Appendix 2. Hypotheses that are not supported are marked with <sup>NS</sup> in the table.

## **5. RESULTS AND DISCUSSION**

It can be seen that the H1, H2 and H3 hypotheses are accepted for all products, whereas the H4 hypothesis is rejected for electronic products and accepted for food and textile products when the H1-H4 hypotheses, which are constituted in order to investigate the relationship between alienation latent variable with other latent variables are tested.

The H1 hypothesis confirms that the perceived value of complaint decreases in case the consumer is alienated from the company because the consumer thinks that his complaint is not worth the efforts when that he is alienated from the company. The H2 hypothesis shows that a significant relationship was found in a negative direction between alienation from the company and the “complaint will be successful” faith. In other words, his “complaint will be successful” faith will decrease when the consumer is alienated from the company. The H3 hypothesis reveals that a significant positive relationship exists between the consumer’s alienation from the company and his non-exhibition of implicit complaint behaviour. As the consumer is alienated from the company, the complaint behaviour shown by him will increase. The consumer alienated from the company will not do any shopping/ deal with the company which dissatisfies him by boycotting it and would warn his immediate surroundings about this issue. Rejection of the H4 hypothesis for electronic products shows that there is no significant relationship between alienation from company and the explicit complaint behaviour. If the consumer alienates from the company, he prefers to boycott the company instead of seeking his rights via company or through legal channels in the case of electronic products. It also indicates that the consumer exhibits implicit complaint behaviour instead of explicit complaint behaviour in the case of electronic products. This result also supports the fact that the implicit and explicit complaint behaviours should be dealt with individually. The consumer exhibits both explicit and implicit complaint behaviour when he is alienated from the company in the case of food or textile products. This result indicates that the consumer does not only seek his rights by boycotting the company but also through legal channels in case of an alienation from the company as when the food and textile products results in health-threatening dissatisfactions. It can be thought that another reason for the relationship between consumer alienation from the company and the explicit complaint behaviour being insignificant for the electronic products in contrast to food and textile products might originate from the specifications of the products. Consumers are protected against “defective goods” within the scope of the consumer protection law. “Defects” of the goods or “consumer misuses” could be easily and immediately demonstrated for food and textile products. However, the electronic products are classified as “complex goods” as their technological level is high and they are multi-functional goods. Misuse by consumer affects effective utilization of the goods significantly in these type of goods. The consumer may think that it is not a very easy and realistic issue to understand whether the problem originated from a “defective good” or from “misuse” for these type of goods.

It can be seen that the H6 and H7 hypotheses are accepted, whereas H5, H8 and H9 hypotheses are rejected for the electronic products when the H5-H9 hypotheses which are constituted in order to investigate the relationship of the controllability latent variable with other latent variables are tested. It is observed that a positive and strong relationship exists between the controllability; in other words, the individual’s faith in the companies could prevent dissatisfaction of consumers by predicting them, and the “complaint will be successful” faith and complaint intention. On the other hand, it can be seen that a direct significant relationship does not exist between the controllability and perceived value of a complaint and complaint behaviour in this case. It can be said that the expression given for H4 above also applies for H5.

When an individual thinks that the company could prevent him from dissatisfaction, his “complaint will be successful” faith and the complaint intention increase. Despite this, the complaint behaviour is affected indirectly (through complaint intention moderator variable) by the controllability latent variable. It can be seen that H5 and H6 hypotheses are accepted whereas the H7, H8 and H9 hypotheses are rejected for food products. This case reveals that the consumer’s belief in that the company would prevent his complaint increases the perceived value of the complaint, while it does not affect the “complaint will be successful” faith in the case of food products as opposed to electronic products. It can be seen that the H8 and H9 hypotheses are rejected whereas the H5, H6 and H7 hypotheses are accepted for the textile products. The H5 hypothesis is confirmed for food and textile products, whereas H6 for all products and H7 for electronic and textile products. When an individual thinks that the company could prevent his dissatisfaction, his complaint intention will increase in all cases. The H8 and H9 hypotheses are not confirmed for all three cases. It is observed that the controllability factor does not directly affect complaint behaviour in the case of any products.

The H10 hypothesis, which is constructed in order to determine the relationship between the perceived value of the complaint latent variable and the complaint intention latent variable, is rejected for electronic products and textile products and it is concluded that no significant relation exists between these variables. It is concluded for the food products that a significant relationship exists between these variables and that the complaint intention also increases by a perceived value of the complaint increase. The consumer will intend to make a complaint by thinking his complaint behaviour is worth his efforts in case of food products. The H11 hypothesis, which is constructed in order to investigate the relationship between the “complaint will be successful” faith latent variable and the complaint intention latent variable, reveals significant differences between these variables for all products.

The H12 hypothesis which is constructed in order to determine the relationship between the complaint intention and implicit complaint intention has been rejected for electronic products and textile products and it is observed that no significant relationship exists between the complaint intention and implicit complaint behaviour. On the other hand, the H13 hypothesis which is constructed in order to determine the relationship between the complaint intention and explicit complaint behaviour has been accepted for all cases. In this case, we can mention the existence of a significant relationship between the complaint intention and explicit complaint behaviour. The most striking result here is that the complaint intention affects the explicit complaint behaviour for all cases. However, it affects the implicit complaint behaviour for only food products.

It was found in previous studies (see: Kim et. al., 2003; Akan and Kaynak, 2008) that attitude oriented at complaint, the perceived value of a complaint and the “complaint will be successful” faith all affect the complaint intention in a positive way. However, no significant affect of alienation from company was found to exist on complaint intention (Akan and Kaynak, 2008). In this study, it is observed that the complaint intention is affected by the controllability latent variable but the “complaint will be successful” faith and the perceived value of complaint latent variables differ according to the type of products.

When the after-purchase complaint experiences of the students answering questions are analyzed for the last 3 months, it can be seen that 66.3% of them have no complaints against the company whereas 12.8% of them have made a complaint once, 11.6% of them twice, 7% of them three times and the remaining four or more times. Moreover, complaints submitted to the Consumer Protection Association within the last three months constitute only 3.3% whereas the rate of those having made no complaints in this period is 96.7%. In addition, complaints submitted to the Consumer Affairs Pages of Media Organs constitute only 1.2%. From this point of view, it can be seen that the university students do not exhibit too much complaint behaviour and complaints made to a third party/organ is negligibly small. A significant 83.3% of those having made a complaint to the company stated that they have been satisfied with the result of their complaints; whereas almost all of those having made a complaint to a third party/organ have been satisfied with the result of their complaints even though their numbers are so small. A remarkable issue in survey studies is that consumers participating in the survey does not have any knowledge about the existence of a third party/agency where they can make a complaint even though they are university students.

The model proposed in this study should be interpreted as a primary Structural Equation Modeling (SEM) related with the subject and it should be noted that it needs improvement. Therefore, after-purchase intention and behaviour of not only university students but also individuals of all ages and professions could be investigated by keeping the sample volume larger in future studies.

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## APPENDIXES

## Appendix 1 - Standard Weights for the Research Model

Factors/Matters	Electronics	Food	Textiles
<b>Factor ALN: Alienation</b>			
<i>ALN1: Companies do not care about consumers.</i>	0.36	0.24	0.37
<i>ALN4: Companies do not behave honestly to consumers</i>	0.52	0.43	0.56
<i>ALN5: Consumers are not critical of companies.</i>	0.64	0.65	0.68
<i>ALN6: Companies forget their consumers after their products are sold.</i>	0.61	0.57	0.55
<b>Factor CON: Controllability</b>			
<i>CON2: Companies might prevent dissatisfaction of consumers if they became careful.</i>	0.65	0.88	-
<i>CON4: Companies may prevent consumer dissatisfactions that might occur in the future by taking consumer complaints into account.</i>	0.77	0.60	1.00
<b>Factor VAL: Perceived value of complaint</b>			
<i>VAL1: If I believed that the companies take my complaint into account and provide me much better service in the future, I would make complaints about the company.</i>	0.88	0.93	-
<i>VAL2: If I believed that the companies take my complaint into account providing me much better service in the future this will also provide benefit to other consumers, I would make complaints about the company.</i>	0.63	0.75	1.00
<b>Factor LKH: The "Complaint will be Successful" Faith</b>			
<i>LKH1: When I make a complaint about a situation that does satisfy me, companies would provide me much better service in the future.</i>	0.75	0.70	0.82
<i>LKH2: When I complain about a situation that does not satisfy me, companies will provide much better service in the future and all consumers will also benefit from this.</i>	0.93	0.93	0.74
<i>LKH3: I will not make any complaints forgetting my shopping/dealing experiences that did not satisfy me.</i>	0.73	-0.22	0.14
<b>Factor CI: Complaint Intention</b>			
<i>CI1: I think making a complaint is time-wasting as I know that I will not receive any positive result from my complaint.</i>	0.72	0.72	0.73
<i>CI3: I will seek my rights against the company which dissatisfies me.</i>	0.63	0.50	0.42
<b>Factor ECB: Explicit Complaint Behavior</b>			
<i>ECB2: I would pass my complaints related to my dissatisfactions to the Consumer Protection Association (ALO 175)</i>	0.30	0.57	0.61
<i>ECB4: I would pass my complaints related with my dissatisfactions to the advisory service of the company.</i>	0.93	0.36	0.48
<b>Factor ICB: Implicit Complaint Behavior</b>			
<i>ICB9: Boycotting company with no shopping from there again.</i>	0.66	0.49	0.76
<i>ICB12: I would warn immediate surroundings against the company for not shopping/dealing there.</i>	0.46	0.61	0.51
<i>ICB13: I would not purchase the product of a brand which dissatisfies me.</i>	0.69	0.63	0.64

**Appendix 2 - Results of Hypotheses (path coefficients (t values))**

	Electronics	Food	Textiles
H1: ALN → VAL	0.18 (2.37 **)	0.12 (1.69*)	0.14 (2.25**)
H2: ALN → LKH	-0.30 (-3.98***)	-0.51 (-5.90***)	-0.48 (-6.27***)
H3: ALN → ICB	0.29 (3.29***)	0.53 (4.74***)	0.41 (4.90***)
H4: ALN → ECB	0.018 (0.26 <sup>NS</sup> )	0.27 (2.35**)	0.34 (3.18***)
H5: CON → VAL	0.086 (1.17 <sup>NS</sup> )	0.33 (4.70***)	0.11 (1.95*)
H6: CON → LKH	0.48 (5.67***)	0.11 (3.24***)	0.23 (3.45***)
H7: CON → CI	0.50 (4.43***)	-0.086 (1.51 <sup>NS</sup> )	0.093 (2.63**)
H8: CON → ICB	-0.082 (-0.88 <sup>NS</sup> )	0.12 (1.45 <sup>NS</sup> )	-0.025 (-0.34 <sup>NS</sup> )
H9: CON → ECB	0.010 (0.13 <sup>NS</sup> )	0.14 (1.27 <sup>NS</sup> )	0.14 (1.28 <sup>NS</sup> )
H10: VAL → CI	0.11 (1.39 <sup>NS</sup> )	0.20 (2.28**)	0.11 (1.32 <sup>NS</sup> )
H11: LKH → CI	-0.18 (-1.97**)	0.52 (5.06***)	0.45 (3.66***)
H12: CI → ICB	0.16 (1.61 <sup>NS</sup> )	0.30 (2.77***)	0.12 (1.21 <sup>NS</sup> )
H13: CI → ECB	0.49 (2.11**)	0.84 (4.67***)	0.79 (3.71***)
* $p \leq 0.10$ , if $ t  \geq 1.65$ , ** $p \leq 0.05$ , if $ t  \geq 1.96$ , *** $p \leq 0.01$ , if $ t  \geq 1.96$ (supported) <sup>NS</sup> not significant (not supported)			