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Hamilelerin Giysi Satın Alma Davranışlarının İncelenmesi ve Bir Model Önerisi

Research on Pregnant Women's Clothing Shopping Behaviors and Suggestion of a Sample Model

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RESEARCH ON PREGNANT WOMEN'S CLOTHING SHOPPING BEHAVIORS AND SUGGESTION OF A SAMPLE MODEL

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ABSTRACT: The purpose of this study is to present a model for the manufacturers aimed at specifying consumer characteristics through investigating the behaviors of pregnant women in purchasing clothes. The population of the research conducted the scanning method consists of 37245 pregnant women who live in Adana and gave birth in 2009. Research samples, on the other hand, include 106 pregnant women participants who were selected via multi-stage sampling. For the study, interviews were used as the data collection tool. The results of the study showed that the participant needed their first maternity clothes in their 6^{th} and 5^{th} month. The number of maternity clothes purchased during the pregnancy ranged from 3 to 9 items. According to pregnant women's opinions about the sizes of the shirts they purchased: the clothes had a "tightness" problem for 63.2% of participants in abdominal width. Throughout pregnancy, the pregnant women said the most necessary clothing type was shirts and tops, and the most comfortable ones were pants or skirts. As a result of this research, a sample model based on the findings which is thought to help improve consumer satisfaction about maternity wear has been suggested.

Keywords: Pregnant Consumers, Maternity Wear, Shopping Behaviors, Consumer Satisfaction.

HAMİLELERİN GİYSİ SATIN ALMA DAVRANIŞLARININ İNCELENMESİ VE BİR MODEL ÖNERİSİ

ÖZET: Araştırmanın amacı hamilelerin giysi satın alma davranışlarının incelenerek üreticilere, tüketici özeliklerini belirtmeye yönelik bir model sunmaktır. Tarama yönteminin kullanıldığı araştırma materyalini; Adana ilinde yaşayan ve 2009 yılında ilde doğum yapmış olan 37,245 hamile kadın oluşturmaktadır. Araştırma örneklemi ise materyalden kademeli örneklem yöntemi ile seçilen 106 hamile kadındır. Araştırmada veri toplama aracı olarak görüşme formu kullanılmıştır. Araştırma sonuçlarına göre ilk hamile giysisine hamileler, 6. ve 5. ayında ihtiyaç duymuştur. Hamilelik boyunca alınan ortalama giysi adedi 3-9 adet aralığındadır. Satın aldıkları üst giysilerin boyutlarına ilişkin görüşlerine göre; hamilelerin % 63,2'si göbek genişliğinin "*dar*" olduğunu ifade etmişlerdir. Hamilelik süresince en çok ihtiyaç duyulan giysi türü üst giysiler; en çok rahat edilen giysi türü alt giysilerdir. Araştırma sonucunda bulgulara dayanarak geliştirilen hamile giysilerinde tüketici memnuniyetini öne çıkarmaya faydalı olacağı düşünülen bir model önerisi sunulmuştur.

Anahtar Kelimeler: Hamile Tüketiciler, Hamile Giysileri, Satın Alma Davranışı, Tüketici Memnuniyeti.

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1. INTRODUCTION

According to the total fertility rate world-wide, African countries are at the top (7.6 in Nigeria, the others within a range of 6 to 4). Fertility rates are 1.2 in Japan, 1.4 in European countries and Russia, 2.1 in USA and 1.5 in China [1]. In Turkey (between the ages of 15-45) the fertility rate is 2. The number of births that took place in Turkey was 1,241,617 in 2009; this number will be 1,273,000 by the year 2015 if the average fertility rate is assumed to remain the same [2]. Considering the statistics, women need maternity wear twice in their lives on average. Hence clothes are regarded as an important niche market in Turkey [3].

Therefore, the purpose of this study is to present a model for manufacturers aimed at determining consumer characteristics by investigating the maternity clothes purchasing behaviors of pregnant women living in Adana, Turkey.
Research questions are organized as follows:
Pregnant women;

- What are their views about acquiring clothes?
- What are their views about the sizes of purchased clothes?
- What is the significance level of their desired clothing features?
- What should a conceptual model for improving clothing production contain?

Some useful literature review will help through the way in search of answers for these questions. Pregnancy is a physiological process which starts with the embryo occurring at the uterus and ends up with birth. In this physiological process, changes in the mother's metabolism as well as anatomical changes are observed; therefore changes in shape occur. The pregnancy for the mother can be a difficult process because of the resulting effects on the mother's body [4-5].

Pregnancy is divided into three periods; the first trimester, the second trimester, and the third trimester. The first trimester is the period starting from the last menstruation to the 12^{th} – 13^{th} week of the pregnancy. The second trimester is the period lasting from the end of the first trimester to the 27^{th} week of the pregnancy. Lastly, the third trimester is the period between the end of the second trimester and the 40^{th} week of the pregnancy [6].

In terms of the clothing construction, the major physiological changes in pregnancy are grouped under the headings of:

- Weight gain
- Size expansion
- Postural changes

1.1. Change in Body Weight during Pregnancy

A healthy woman should optimally gain between 9 and 12 kg of weight by the end of the pregnancy [7]. Since the change in body weight together with the profound psychological changes in the period of gestation make physical adaptation more difficult, it necessitates considerable implications for the comfort of the women during the pregnancy [8].

In the study by Üstün et al. to determine the expectations of pregnant women from clothing products, "the parts of their body of which women has weight gain" was mostly investigated. The results 21.3% of the women gain weight both on the hip and breast girth, 18% of them gain weight mostly on the hip while 16% gain the most weight on the breast [9].

Although special clothes are not needed at the beginning of the process, the sizes of maternity wears need to be changed by the time the abdomen begins to grow depending on the growth of the uterus.

1.2. Dimensional Changes during Pregnancy

In the study of Rutter et al., the measurements of 80 American women's sizes in the 4^{th} – 16^{th} weeks and after the 36^{th} week of pregnancy were compared. An increase of 8% in participants` breast girth and 4% in participants` hip girth were observed. It was found that the approximate increases from the point of the abdomen's edge to the ground, in abdomen depth parallel to the ground and in abdomen girth were 2.8 cm, 8.2 cm and 16.1 cm, respectively [10].

1.3. Postural Changes during Pregnancy

Major postural changes occur during the 5^{th} to 9^{th} month of pregnancy [8]. In pregnant women, the standing posture changes as the fetus develop. Increased loading on

the lumbar spine and abdominal muscles causes a shift of the head position in the posterior direction and increases the lumbar lordosis and anterior pelvic tilt [11-12].

Lumbar vertebral lordosis occurs due to the increasing weight of the forward growing uterus. The necks bending toward the front and shoulders` stooping are observed [13]. Each woman during pregnancy is observed to have different physical and postural changes. The pregnant abdominal form may change depending on the body shape of the woman before pregnancy (narrow hips or wide hips), the body type (mesomorphy, endomorphy, ectomorphy, etc.) or the weight that she gains. As Eisenberg et al. mentioned, three women who are in the 8th month of pregnancy can have different physical appearances [14]. Thus each purchased clothing will have a different adaptation to and appearance on the pregnant woman because the abdominal shapes of pregnant women will change at the end of the eighth month. Determining the target market's body size can be decisive in preparing correct forms of clothes. In addition, monitoring the features of individual consumers such as body type, body features, and demographic structure in relation to environmental and product features will promote the efficiency of the manufacturing planning process.

Maternity wears should have ergonomic features that will correspond to the psychical structure of the body as well as fitting to the body size. Most of the clothes produced are prepared with `the trial and error` method instead of observing the process of pregnancy. Physical changes of this period lead the maternity clothes to have size, fit, and comfort problems [15].

According to Üstün et al. pregnant women have problems about finding clothes that fit to their body during the pregnancy period [9]. Major problems indicated in the apparel pattern are disparity of clothing measurements and disproportional sizes such as tightness problems on the breast and hip and a shortness problem in the front length compared to the back length and side seams depending on abdominal growth.

These two major fit concerns are because of absence of a standardized sizing system in the current apparel industry (i.e., inconsistency of clothing sizes across and within different brands) and lack of attention by industry to body shape changes [16].

According to Güzel it is understood that usage of pregnancy clothes increases by the 5th month and problems of failure to comply with body and the size of purchased skirt and pants result in alterations in the length or width of dresses and pants. It is also indicated that practicality and comfort are the most preferred features when purchasing clothes [17].

In a similar research, Chan also states that the most important factors in purchasing pregnancy clothes are: comfort, smoothness, absorptiveness, functionality, fashion, quality, and cost [18]. According to Üstün et al. pregnant women look for snugness as the most important features in their choice of clothes [9]. Therefore it is confirmed that the belly-fit size clothes get more difficult to wear due to extension at the waist and the abdomen after 4th month of pregnancy.

1. MATERIAL AND METHODS

Scanning method is used at the study. The survey's population is 37,245 pregnant women who live in Adana and gave birth in 2009. The research samples consist of 106 pregnant women who received support from Adana Maternity Hospital. (The gradual sampling method was used to select the samples. Cluster Sampling in each selected clump was applied because of numerous clumps which caused extension of the sample [19]. In terms of statistics, the sample size was calculated as 96 participants with a 95% confidence interval and ±.10 sampling error since the material was over 25,000 [20]. However, the number of participants was increased to over 100 on account of the significance of conclusion). According to Table 1 regarding the survey sampling and distribution, a mother's maximum fertility age mean in Adana in 2009 ranges from 20 to 29. All women who agreed to participate were in their first pregnancy. Thus, the study attempted to minimize clothing problems resulting from bodily changes due to previous pregnancies. The women voluntarily agreed to participate in the research and responded to the questions on the interview form. All of the participants were in the last trimester of their pregnancy and normal in terms of postural and physical characteristics (Table 1).

The data obtained from survey forms was analyzed in SPSS (Statiscal Packages for Social Science) program in terms of frequency, percentage and correlation analysis.

Table 1. Parity in age groups of mothers in the Adana sampling

		Mother's age								
Universe	<15	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50+	Unknown
37249 % 100	23	3220 8	10439 28	11738 31	7334 19	3497	768	98	9	123
Sample		% 78								
106		15-19	20-24	25-29	30-34					
		14	39	34	19					
% 100		13,2	36,8	32,1	17,9					

(Adapted from: Statistics from General Directorate of Civil Registration and Nationality in 2009) (By the date of 31.08.2010)

2. RESULTS AND DISCUSSIONS

3.1. Pregnant Women's Views on Acquiring Clothing

Pregnant women's views on acquiring clothes are provided in Table 2.

Table 2. Data about the clothes supplying

Options		F	%
Total Number of Purchased Clothes	1 – 2	2	1.8
	3 – 4	23	21.7
	5 – 6	29	27.4
	7 – 8	33	31.2
	9 – 10	19	17.9
	Total	106	100
The Way of Supplying Clothes	Sewing- get Sewed	17	16
	Recondition	14	13.2
	Borrow	16	15.1
	Purchase	59	55.7
	Total	106	100
Fabric Type	Knit Fabrics with/without Lycra	43	40.6
	Woven Fabrics with/without Lycra	63	59.4
	Total	106	100

The majority of the women who participated in the survey bought their first maternity clothes in the sixth month (36.8%), followed by the fifth month (27.4%), the fourth month (19.8%), the seventh month (13.2%) and the third month (2.8%) of their pregnancies. These findings are important in planning maternity clothing production in terms of indicating the maximum months needed and they confirm similar results. For instance, the first maternity clothes were purchased in the fifth and sixth month of pregnancy, according to the survey conducted by Güzel [17]. According to the survey which was conducted by Bye and Sohn, it was found that participants bought their first maternity clothes in the fourth month and they needed wider clothes after the seventh month [15].

These three surveys confirm that the need for clothing emerges when pregnancy is in its most obvious period of weight gain and abdominal extension. According to medical research, pre-pregnancy weight increases by roughly 25% during the period of pregnancy. This amount is approximately 12.5 kg in every woman. The greatest increase in weight is seen in the second half of pregnancy [21]. The average of 80 American women's weights was found to be 61.9 kg at the end of measurement of weight gain in the 4^{th}, 16^{th} and 36^{th} weeks. 17% (±10.5 kg) of this weight was gained during pregnancy [10]. 150 women in Turkey categorized their weight gain as coming from hip and chest girth (21.3%), chest girth (18%), hip girth (16%), thigh (14%), hips and legs (13.3%), respectively.

During pregnancy, the average number of clothes obtained by 49.1% (27.4 + 21.7) of participants ranged from 3 to 6 items. Among the participants, 31.2% purchased 7-8 clothing items. The survey carried out by Üstün et al. indicated that 78.7% of pregnant women completed the period with 3-6 clothing items (rate of 4 % = 7-8 clothes) [9]. Compared with both of the surveys

mentioned above, the number of clothes obtained by pregnant women increased in this survey. This number confirms that maternity wear production is an important niche market which needs to be focused on.

It was found that 55.7% of pregnant women fulfill their clothing needs through ''purchasing''. It was also seen that, respectively, 15.1% of pregnant women borrowed clothes from others, 13.2% made alterations on existing clothes, and 8.5% sewed clothes on their own (Table 2).

It was found that 90.4% of pregnant women who participated in Güzel's survey and 92.7% of pregnant women who participated in Üstün et al. survey used ready-made clothing [9-17]. According to findings, it can be said that the pregnant women in this survey purchased fewer ready-made clothes on average. It is thought that environmental, economic and socio-cultural factors may affect these results because these features of this survey's participants and the other surveys' are not similar.

In terms of pattern and form, because of their greater comfort and ability to adapt to the body, 30.2% pregnant women prefer knitted fabric with lcyra and 10.4% pregnant women prefer knitted fabric without lycra and on the other hand 59.4% of pregnant women prefer clothes made of woven fabric. 66% of pregnant women who participated in the survey of Üstün et al. preferred woven fabric (20.7% of this rate is denim fabric and partly lycra) and 34% of pregnant women preferred knitted fabric clothes [9]. Findings demonstrated that clothes made of textiles with Lycra were preferred due to their being more comfortable during movement and use.

Man tried prototype clothes on 10 pregnant women to improve supportive clothes and solicited their views. Women's demands are listed as follows: thin, smooth, with invisible connecting pieces, and easy to put on, take off, and move in. Desire for comfort is more evident in this survey [22].

3.2. Pregnant Women's Views About Sizes of Purchased Clothes

Pregnant women's views about sizes of purchased clothes are given in Table 3.

Table 3. Pregnant women's views about purchased upper clothes sizes

Sizes	Parts of Pattern	Tight		Normal		Wide		Total	
		F	%	F	%	F	%	F	%
Horizontal (width) Sizes	Shoulder	2	1.9	103	97.2	1	0.9	106	100
	Front	30	28.3	74	69.8	2	1.9	106	100
	Back	24	22.6	80	75.5	2	1.9	106	100
	Lower Bust	27	25.5	75	70.8	4	3.7	106	100
	Abdomen	67	63.2	29	27.3	10	9.5	106	100
	Back Waist	55	51.9	40	37.7	11	10.4	106	100
	Front Hip	58	54.7	39	36.8	9	8.5	106	100
	Back Hip	62	58.5	37	34.9	7	6.6	106	100
Girth Sizes	Collar	14	13.2	90	84.9	2	1.9	106	100
	Breast	24	22.6	80	75.5	2	1.9	106	100
	Abdomen	66	62.3	37	34.9	3	2.8	106	100
	Hip	45	42.5	61	57.5	-	-	106	100
	Armhole	42	39.6	54	51	10	9.4	106	100
	Biceps	35	33	67	63.2	4	3.8	106	100
	Elbow	33	31.1	69	65.1	4	3.8	106	100
	Wrist	29	27.3	73	68.9	4	3.8	106	100
Vertical (Length) Sizes		Tall		Normal		Short		Total	
		F	%	F	F	F	%	F	%
	Upper Clothes Front Center Length	13	12.3	28	26.4	65	61.3	106	100
	Side Seam Length	61	57.5	31	29.3	14	13.2	106	100
	Back Center Length	56	52.8	48	45.3	2	1.9	106	100
	Arms Length	1	0.9	48	45.3	57	53.8	106	100

3.2.1. Width Sizes

As for the width sizes of pregnancy clothes, 63.2% of participants noted that abdominal width was tight, while 58.5% mentioned back hip width size and 54.7% front hip width size as tight. Problems with a tight fit were usually encountered on upper body width sizes. The main reason for this problem is the fast increase in dimensions of abdominal and hip girth where physical changes mostly occur.

3.2.2. Girth Sizes

In terms of girth sizes, 62% of pregnant women complained tightness of their clothes in abdominal girths while 42% had the same complaint in hip girths. Güzel's survey showed that 55.7% of pregnant women wanted sizes of skirts and trousers to be adjustable [17]. Both surveys indicated that pregnant women need clothes which can be adjusted to various abdominal girth sizes. Findings showed that arm hole girth (39.6%), biceps girth (33%), elbow girth (31.1%) and wrist girth (27.3%) of purchased clothes are tight. Girth sizes indicated that in general armhole, abdominal and hip girths have tightness problems (Table 3).

3.2.3. Vertical Sizes

It was also found that for 61,3% of pregnant women the front center length and for 53.8% the arm lengths of purchased clothes were short on the other hand, for 57.5% of the participants the side seam, for 52.8% the back center have length discrepancy problems compared to the front center (see Table 3). The most common part of ready-made clothes which pregnant women made alterations on was dress length at a rate of 36.3% in the Güzel's survey [17]. The most-frequently encountered problems by pregnant women when they purchased clothes were: 26% of them could not find a pattern that fit their body; 22.7% could not find a desirable model; 18.7% could find neither a desired model nor fit pattern as the survey of Üstün et al. indicated [9]. While 32.7% of pregnant women did not encounter a problem, 67.3% of pregnant women encountered at least one of these problems. During the interviews, the most obvious problems mentioned regarding the patterns of clothes were tightness problems in the breast or hip girth, front center length being short in proportion to back center length and side seam length becoming inadequate as abdominal height increases in the 8^{th} and 9^{th} months.

Findings of these three studies indicate that there are problems with upper body vertical sizes. Pregnant women's abdominal height increases while abdominal girth extends. This increase causes shortness problems in the front center. The main solution to the form problem in maternity wears is to accurately measure sizes depending on target population body features and increases in body size rates. Researchers in the USA and Europe have mostly focused on this issue in the last decade. Throughout pregnancy the most needed clothing types according to participants are tops (61.3%) and bottoms (38.7%) (Table 4). However, the most comfortable clothes are pants (59.4%) rather than shirts (40.6%). These findings suggest that tops are uncomfortable and so this results in discontent.

3.3. The Significance Levels of Clothing Features Desired by Pregnant Women

The significance levels of clothing features desired by pregnant women are given in Table 4. In the interviews, it was found that 66% of pregnant women want more comfortable and suitable clothes for the body; 27.4% of them want clothes to be made of elastic fabric; and 4.7% of them want abdominal girth of clothes to be adjustable. In short, 98.1% of participants (66 + 27.4 + 4.7= 98.1%) demanded comfort in pregnancy clothes. According to the survey of Güzel, 53.2% of pregnant women argued that clothes would be more useful, while 20.2% of the participants argued that better designed clothes were required [17].

Table 4. Range of clothes types which are needed and feel comfortable

Options		F	%
Needed Clothes	Upper Clothes	65	61.3
	Lower Clothes	41	38.7
	Total	106	100
Comfortable Clothes	Upper Clothes	43	40.6
	Lower Clothes	63	59.4
	Total	106	100
Demanded Clothing Features	Body Fitting and Comfort	70	66
	Surface Elasticity	29	27.4
	Size Changeability of Abdominal Girth	5	4.7
	Fit of Lower – Upper Clothing	2	1.9
	Total	106	100

As it is clear from the findings of the both surveys, pregnant women demand more useful and more com-

fortable clothes. The reason for preferring elastic fabric clothes is that they have a facilitative form that adapts to the body. This finding is a confirmation of pattern choice among the significance levels of the clothing features given in Table 5.

Table 5 shows how much pregnant women care about clothing features. 83% of pregnant women see clothing pattern; 70.7% see fabric; 72.6% see ease of maintenance; 84.9% see ease of use; and 73.6% see model as important and very important. Similar results are observed in Man's survey [22]. That is 100% of 10 participants demanded simple and convenient clothes that can be put on and taken off easily.

Findings indicate that pregnant women care about patterns of clothes and they want clothes to be adaptive to the body and trouble-free during usage. On the other hand, it is striking to find that 87.4% of pregnant women (60.4 + 18.9) do not care about clothes being in fashion and 74.5% (52.8+21.7) don't care about after-sale services. The style of the clothing is very important for pregnant women (73.6%) and they identified it with ease of maintenance but stated that fashion was unimportant. Pregnant women's regard for after-sale service as unimportant was attributed to their use of clothes for only a particular period of time. According to the survey of Güzel, the most preferred features of clothes are usefulness (53.2%) and fashion (20.2%) [17]. Pregnant women's regard for the usefulness of clothes was found to be 84.9% in this survey. In the survey of Üstün et al., the most important feature that pregnant women care about while buying clothes is comfort (100%) [9]. (Even though model (61.3%) and price (55.3%) are very important, fashion (64%) and brand name (58%) are considered unimportant). All three studies found these features to be important: ease of maintenance, adaptation to the body and comfort.

Coefficients of Pearson correlation, means and standard deviation rates of the independent variables can be seen at Table 6. According to that, usability is the most important feature for pregnant women in reference to the means of the significance levels of clothes` features. Therefore significance levels of aesthetic and fashion variables of maternity wears were ($p < .01$) and positively related to each other. The highest correlation was between aesthetic and fashion features (.670**). It is followed by the correlation variables of fabric and color (.628**) and fabric and style/model (.500**).

Table 5. Range of clothing features' significance levels

Features	*Significance Level									
	1		2		3		4		Total	
	F	%	F	%	F	%	F	%	F	%
Pattern	5	4.7	13	12.3	81	76.4	7	6.6	106	100
Fabric	9	8.5	22	20.8	71	66.9	4	3.8	106	100
Ease of Maintenance	6	5.7	23	21.7	68	64.1	9	8.5	106	100
Usability	4	3.8	12	11.3	67	63.2	23	21.7	106	100
Style/ Model	10	9.4	18	17	67	63.2	11	10.4	106	100
Color	8	7.5	27	25.5	62	58.5	9	8.5	106	100
Price	17	16	11	10.4	57	53.8	21	19.8	106	100
Esthetic	37	34.9	33	31.1	25	23.6	11	10.4	106	100
After sale service	56	52.8	23	21.7	21	19.8	6	5.7	106	100
Fashion	64	60.4	20	18.9	17	16	5	4.7	106	100

*: 1: *Not important* 2: *Partly important* 3: *Important* 4: *Most important*

Table 6. Correlation analysis of clothing features' significance levels

	M	SD	Style/ Model	Color	Fabric	Pattern	Price	Usability	Ease of Maintenance	Aesthetic	Fashion	After Sale Service
Style/ Model	2.7453	.76918	1	.476**	.500**	.350**	.142	.245*	.043	.254**	.332**	.235*
Color	2.6792	.73740	.476**	1	.628**	.364**	.072	.203*	.181	.106	.213*	-.059
Fabric	2.6604	.68850	.500**	.628**	1	.499**	.173	.159	.185	.088	.203*	.017
Pattern	2.8491	.59829	.350**	.364**	.499**	1	.342**	.399**	.256**	.056	.164	.025
Price	2.7736	.94901	.142	.072	.173	.342**	1	.485**	.308**	-.058	-.125	.124
Usability	3.0283	.69635	.245*	.203*	.159	.399**	.485**	1	.472**	.174	.060	.138
Ease of Maintenance	2.7547	.68746	.043	.181	.185	.256**	.308**	.472**	1	.311**	.105	-.009
Aesthetic	2.0943	1.00027	.254**	.106	.088	.056	-.058	.174	.311**	1	.670**	.400**
Fashion	1.6509	.91592	.332**	.213*	.203*	.164	-.125	.060	.105	.670**	1	.391**
After Sale Service	1.7830	.95623	.235*	-.059	.017	.025	.124	.138	-.009	.400**	.391**	1

**. Correlation is significant at the .01 level (2-tailed).
*. Correlation is significant at the .05 level (2-tailed)

3. CONCLUSION

106 pregnant women's preferences in acquiring clothes and the features of clothes they consider important was investigated in this survey. More than half of the pregnant women (64.2%) acquired their first clothes in the 5th or 6th month of pregnancy, and most women (55.7%) preferred purchasing. One of every three people (31.2%) stated that they purchased 7-8 clothing items. Only 1.8% of them purchased 1-2 clothing items.

Two of three pregnant women (67.9%) considered lycra fabric clothes to be more comfortable. Pregnant women needed tops more than bottoms. 66% of participants expressed that the most desired feature of clothes is ''*adaptability to the body and comfort*''. The significant clothing features are, respectively, clothing pattern (76.4%), fabric (66.9%), and ease of maintenance (64.1%).

In sum, pregnant women (98.1%) care about clothes' adaptability and comfort. On the other hand, they don't care about fashion (79.3%) and after-sales services (74.5%). Usability is the most important feature for pregnant women in reference to the means of the significance levels of clothes` features. The results of the survey indicated that customers have various problems with purchased clothes adapting to the body dimensionally and the main factors affecting the purchasing process are ease of maintenance and ease of use. A suggested model which was developed on the basis of these results to highlight customer satisfaction with pregnancy clothes is represented in Figure 1 and 2 (see Figure 1, 2). The model is based on the study of collection design stages by Kişoğlu and Çeğindir, 2003, Çeğindir, 2010. [23, 24].

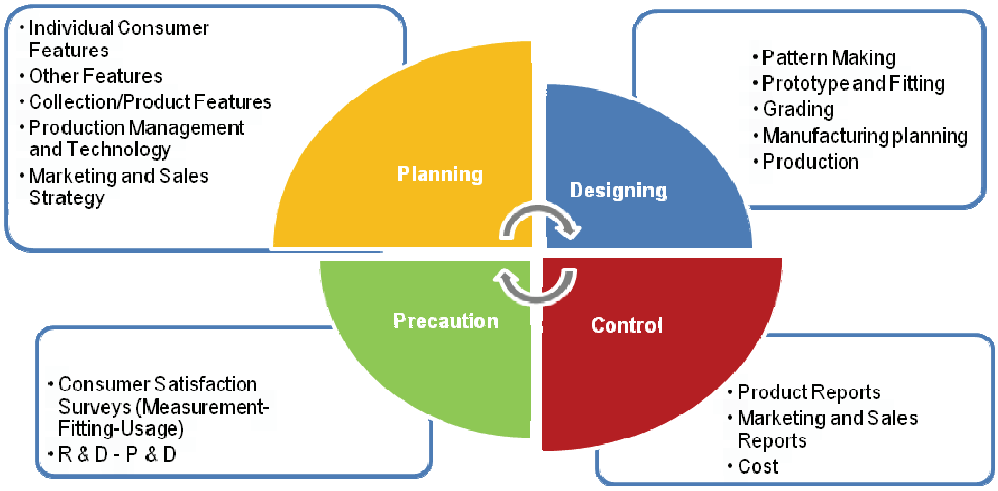

Figure 1. The model of production planning for pregnant women's upper clothes [Adapted and Based References: 3, 23, 24]

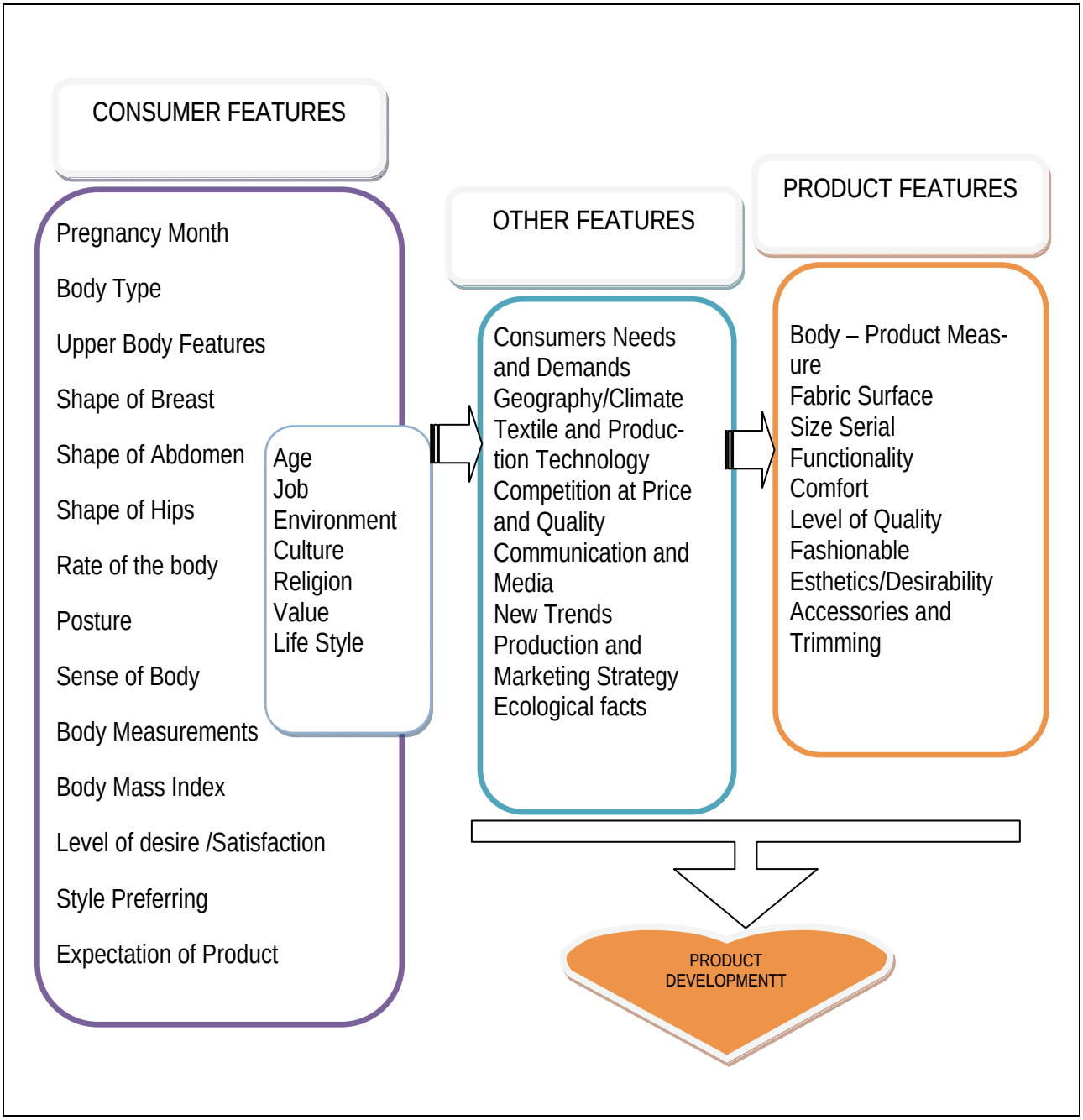

Figure 2. The model of conceptual framework for pregnant wear production development [Based References: 3 & 24]

Today the most effective tool to determine consumers' body type, shape, and postural features is the body scanning method. However, both in terms of manufacturers' economic and physical conditions and customers' shyness about their bodies, even with traditional measurement techniques, restrict the use of such technology in Turkey. Nevertheless surveys with correct and active sample groups will contribute to the field. To try out the model given as an illustration in the Figures 1-2 and to put it into practice by taking pregnant women's feedback are important for the satisfaction of both the manufacturing sector and customers in order to provide healthier and more active manufacturing.

Cloth fitting problems caused by the variety of women body shapes are getting more complicated because of pregnancy. Consumer satisfaction is not successfully ensured because of pregnant women's different shapes of abdominal, comfort, changeable abdominal circumference. In accordance with the information obtained, the following inferences can be drawn:

- Adjustable abdominal sizes of maternity garments should be designed for pregnant women as their abdominal circumference is constantly changing.
- Features of consumer, production features and other features should be considered as a whole and production should be in accordance in maternity garment producing market. (Figure 2).
- The model of production planning for pregnant women's upper clothes should be used by maternity clothing producers. It should help to improve process of production. (Figure 1)
- Maternity garments patterns should not be designed by only taking abdominal circumference into consideration.
- The other body measurements and body shapes which are also changing should be taken into account.
- Maternity garment patterns with different statures at the same sizes can be produced.
- Maternity garment form and aesthetic should be given more importance.
- For future studies about this problem, opinions of participants trying maternity garments with the same form can be asked.

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