

FACTORS INFLUENCING CONSUMER BEHAVIOUR IN MARKET VEGETABLES IN YEMEN

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Abstract

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The purpose of the research is to understand factors influencing consumer behaviour when buying vegetables in Republic of Yemen. Data collection was done by structured questionnaire administered through schools, universities, government offices, and markets from 13 provinces in 5 governorates. Random convenience sampling technique was used. Total sample comprised of **463** completed questionnaires which were used for analysis. The respondents were classified into five categories on the base of their monthly income, age, education, gender, and type of settlement. Authors present the factors that can influence significantly this behaviour, e.g. price, quality, the location of seller, habit, personal relationship between consumer and seller, occasions, discount, sorting, word-mouth, time of purchase, the way of products display, and recommendation of friends and families. From the obtained results, it is obvious that there was high influence on the behaviour of Yemeni consumer when buying vegetables for factors price, occasions, discontent, and time of purchase, while factors habit, display, sorting, and the location of seller suggests medium influence, and the influence was low for word-mouth.

consumer behaviour, marketing research, factors analyses, ANOVA

Understanding consumer purchasing behavior allows a company to more easily provides for consumers' needs and more easily promote the company's products and services. Understanding consumer behavior leads to marketing success (Bennett, 2010). The field of consumer behaviour covers a lot of ground: it is the study of the processes **involved when individuals or groups** select, purchase, use or dispose of products, services, ideas or experiences to satisfy needs and desires (Kotler, 2001; Solomon *et al.*, 2006). The consumer behaviour is based on decision-making of individuals when spending their own resources (i.e. time, money and efforts) in order to obtain items associated with consumption. This form of behaviour involves reasons why, when, where, how often and what people buy, how often they use the purchased items, how they evaluate them after the purchase and in which way these factors influence their future purchases (Stávková *et al.*, 2007).

MATERIAL AND METHODS

The research objective was to test the following hypotheses:

Hypothesis 1: Yemeni consumer behavior is influenced by factors like price quality, location of seller, habit, relationship between consumer and seller, occasions, discount, sorting, word of mouth, time of purchase, and recommendation of friend and family.

Hypothesis 2: The influence of mentioned factors will be at different levels (high, medium, and low).

To search for validity of hypothesis, the necessary survey of the factors has been accomplished in Yemen Republic. The questionnaire was administered from 13 provinces in 5 governorates in August and September 2009, research involving 463 consumers.

The marketing research was performed by the means of personal interviews and personal

relationship (to obtain data form difference categories specifically in terms of gender and income groups).

The analysed set of consumer units was classified into:

- Difference income groups (monthly income less than 40 thousand YRs, 40–80 thousand YRs, and above 80 thousand YRs).
- Difference age groups (below 30 years, 30–50 years, and above 50 years).
- Difference education (secondary and lower, university, and higher education).
- Difference gender (male and female).
- Difference settlement type (urban and rural).

The statistic software SPSS was used to analyse the obtained results.

ANOVA test was run on the sample to understand whether there existed any significant difference in the individual factors influencing Yemeni consumer's buying decisions of individual age, income, education, gender, and settlement type groups. For further understanding differences, the post-hoc tests were conducted for the factors mentioned above to know the significant differences between the various groups within category.

RESULTS AND DISCUSSION

The obtained results were divided in terms of:

- Geographic areas (see table I).
- Income, age education, gender, settlement type (table II).

1. Effects of the individual factors on consumer buying decisions in Yemen

The buying decision process stems from the perceived needs and buying (economic) possibilities that are to a great extent influenced by the offer (Foret and Procházka, 2006). There are a lot of factors

II: Absolute and relative numbers of different groups in study categories

Category	Group	Absolute	Relative
Monthly Income (thousand) YRs	Below 40	219	46.9
	40–80	201	43.84
	Above 80	43	9.29
Age	Below 30	217	46.9
	30–50	184	39.74
	Above 50	62	13.39
Education level	Secondary and below	287	62.0
	University	128	27.65
	Higher	48	10.37
Gender	Male	381	82.29
	Female	82	17.71
Settlement type	Urban	298	64.79
	Rural	165	35.21

Source: Result of own research

influencing consumer by decision-making process. The literature classifies and structures these factors in various ways. For example division into inner and outer factors (Koudelka, 1997), distinguishing three basic categories: personal, psychological and social factors (Brown, 2006), to which Kotler (2001) adds the cultural factors as the independent category (Stávková *et al.*, 2008). Factors price, quality, the location of seller, habit, personal relationship between consumer and seller, occasions, discount, sorting, word-mouth, time of purchase, the way of display products, and recommendation of friends and families are studied to understand their impact on consumer's buying decision; the data are summarized in Table III. On the other hand dependency of the purchase of vegetables on income, age, education, gender, and settlement type are shown in tables IV and V.

1.1 Price

Consumers do 'marketing' when they search for the goods they need at prices they can afford (Kotler, 1999). Price is the most important factor effecting demand, hence it has a significant effect on Yemeni consumer behavior. Table III shows a great effect of price on consumer decision when buying vegetables. All respondents were influenced by this factor (in nearly 92% this effect was high). When comparing this factor with the individual identification variables, it was revealed that in the individual groups of respondents the highest effect of price was mentioned by 93.5% of people in the age category of below 30 years; 93.2% of both people in income category of below 40 thousand YRs and males; 93% for consumers who live in urban areas. On the other hand the lowest group affected on price was consumers with monthly income more than 80 thousand YRs, the effect of price was high

I: Classification of consumers by governorate and province

Governorate	Province	Number
Ibb	Al-Dhahar	127
	Al-Mashanna	76
	Jiblah	18
	Al-Sabrah	24
	Al-Makhader	102
	Fara Alodain	8
Aden	Khur Maksar	23
	Alshaikh Othman	25
	Almuala	11
	Almansora	7
Abian	Khanfar	3
Lahj	Toban	2
Sanaa'a city	Alsabeen	37
Total		463

Source: Result of own research

III: Factors influencing consumer behavior in Yemen Republic

Factor	Effect							
	High		Medium		Low		No	
	Absolute numbers	Relative numbers	Absolute numbers	Relative numbers	Absolute numbers	Relative numbers	Absolute numbers	Relative numbers
1 Price	425	91.79	31	6.70	7	1.51	0	0
2 Quality	210	45.37	197	42.55	56	12.10	0	0
3 The location of the seller	163	35.21	251	54.21	45	9.72	4	0.86
4 Habit	41	8.86	380	82.21	34	7.34	8	1.73
5 Personal relationship with the seller	179	38.66	208	44.92	61	13.17	15	3.24
6 Occasions *	421	90.92	27	5.83	11	2.38	4	0.86
7 discount	360	77.75	83	17.93	17	3.67	3	0.65
8 Sorting	55	11.88	361	77.97	42	9.07	5	1.08
9 Word-of-mouth	22	4.75	148	31.97	241	52.05	52	11.23
10 The time of purchase **	385	83.15	63	13.61	10	2.16	5	1.08
11 Display	30	6.48	280	60.48	132	28.51	21	4.54
12 Recommend	66	14.25	185	39.96	152	32.83	60	12.961

Source: Result of won research

* Such as Ramadan and Id

** The period between the receipt of salary or wage, and the time of purchase

for 86% of them, for 87% of age category above 50 years.

1.2 Quality

All consumers were influenced by quality (approximately 45% of this effect was high and 43% was medium). Consumers with higher education were the highest effected by quality (high effect for 71% of them), the reason for the significant impact of quality on this group is the increase of their income and change in their evaluation caused by education, the second group was people with monthly income more than 80 thousand YRs (high effect 70%). While the lowest effected of quality was people resident in rural (the effect was high for 40% and low for 19% of them), and income category below 40 thousand YRs per month (the effect was high for in nearly 41% and low for 17%). It can be concluded that the higher income people are more influenced by quality.

1.3 The location of seller

Because of the dominance of small sell units and hookers in Yemen, the location of these units is important for consumer in terms of proximity to houses, city center, transport stops, and Main Street. Approximately 99% of respondents were influenced by this factor (in nearly 35% high and 54% medium), the effect of location of seller was high for approximately 55% of **women**, because they prefer to buy from the nearest seller rather than others in the markets in cities centers where there are crowded; 40% of people living in urban areas; 39%

of people with secondary and lower education level. On the other hand the lowest group influenced by this factor was group of rural resident (the effect was high for 28% and low for 22% of them), because they obtained the most vegetable by going to the nearest cities to their villages and often buy from the main central market.

1.4 Habit

The effect of habit on consumer behavior was medium for 82% of respondents; women were more affected by this factor (11% high effect); income grope below 40 thousand YRs (the effect was high for 10.5% of them). The most respondents that weren't influenced by habit were mentioned by 9.3% of people in income category above 80 thousand YRs; high education group by 8.3%; age group above 50 years by 6.5%.

1.5 Personal relationship with seller

This factor maybe seems strange to European people due to the social and cultural difference. In Yemen households depend on small shop near home to provide them by food and other types of goods. Personal relationship between consumer and seller is very important in consumer's buying decision because it enables them to purchase dept and pay when he or she receives his/her salary or wage. Altogether 97% of consumers were influenced by this factor (in nrarly 45% of them was medium effect). The most affected were the people with monthly income less than 40 thousand YRs (in

IV: Dependency of Yemeni consumer behaviour on income, education, and gender categories (%)

Factor	Effect	Monthly Income (1 000 YRs)			Education			Gender	
		<40	40–80	>80	Secondary and below	University	Higher	Male	Female
Price	High	93.2	91.5	86	92.7	91.4	87.5	93.2	85.4
	Medium	5.9	7.5	7	6.6	7	6.2	5.8	11
	Low	.9	1	7	.7	1.6	6.2	1	3.7
	Ineffective	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Quality	High	40.6	45.3	69.8	40.4	46.9	70.8	44.6	48.8
	Medium	42.5	45.3	30.2	47.4	37.5	27.1	42.8	41.5
	Low	16.9	9.5	0.0	12.2	15.6	2.1	12.6	9.8
	Ineffective	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Location of the seller	High	37.4	33.8	30.2	39	28.9	29.2	31	54.9
	Medium	57.1	52.2	48.9	53.7	56.2	52.1	57.5	39
	Low	5	12.9	18.6	6.6	14.1	16.7	10.5	6.1
	Ineffective	.5	1	7	.7	.8	2.1	1	0
Habit	High	10.5	7.5	7	8.7	9.4	8.3	8.4	11
	Medium	83.1	84.6	65.1	84.7	82	66.7	82.9	78
	Low	5.5	7	18.6	5.6	7.8	16.7	7.1	8.5
	Ineffective	.9	1	9.3	1	.8	8.3	1.6	2.4
Relationship with seller	High	45.2	37.8	9.3	42.9	39.1	12.5	40.4	30.5
	Medium	46.6	42.8	46.5	44.6	46.9	41.7	43.8	50
	Low	5.9	16.4	34.9	10.1	11.7	35.4	13.4	12.2
	Ineffective	2.3	3	9.3	2.4	2.3	10.4	2.4	7.3
Occasions	High	90.9	91	90.7	90.6	92.2	89.6	90.8	91.5
	Medium	5.9	6	4.3	6.3	4.7	6.2	5.8	6.1
	Low	3.2	1.5	2.3	2.4	2.3	2.1	2.4	2.4
	Ineffective	0.0	1.5	2.3	.7	.8	2.1	1	0
Discount	High	80.8	77.6	62.8	80.1	78.9	60.4	77.7	78
	Medium	18.3	16.9	20.9	17.4	18	20.8	18.4	15.9
	Low	.9	5	11.6	2.1	3.1	14.6	3.4	4.9
	Ineffective	0.0	.5	4.7	.3	0.0	4.2	.5	1.2
Sorting	High	11.4	10.9	18.6	11.5	9.4	2.8	11.3	14.6
	Medium	78.1	79.6	69.8	78	81.2	68.8	77.7	79.3
	Low	9.6	8.5	9.3	9.8	7.8	8.3	9.7	6.1
	Ineffective	.9	1	2.3	.7	1.6	2.1	1.3	0.0
Word-of-mouth	High	5.5	4	4.7	4.9	4.7	4.2	4.5	6.1
	Medium	32	33.8	23.3	31.7	32.8	31.2	31.5	34.1
	Low	52.1	50.7	58.1	52.3	51.6	52.1	53	47.6
	Ineffective	10.5	11.4	14	11.1	10.9	12.5	11	12.2
Time of purchase	High	87.7	83.1	60.5	85.7	84.4	64.6	83.5	81.7
	Medium	10.5	13.4	30.2	12.5	10.9	27.1	13.6	13.4
	Low	1.4	2.5	4.7	1.7	2.3	4.2	1.8	3.7
	Ineffective	.5	1	4.7	0.0	2.3	4.2	1	1.2
Display	High	6.8	6.5	4.7	6.6	6.2	6.2	6.8	4.9
	Medium	62.1	59.2	58.1	62.7	56.2	58.3	60.6	59.8
	Low	26	29.9	34.9	26.1	32	33.3	28.3	29.3
	Ineffective	5	4.5	2.3	4.5	5.5	2.1	4.2	6.1
Recommendation of friends	High	15.5	13.4	11.6	12.9	18.8	10.4	14.2	14.6
	Medium	37.4	42.3	41.9	38.3	41.4	45.8	38.6	46.3
	Low	34.2	13.3	32.6	37.6	22.7	31.2	33.9	28
	Ineffective	12.8	12.9	14	11.1	17.2	12.5	13.4	11

Source: Result of own research

V: Dependency of Yemeni consumer behaviour on age and locality type categories (%)

Factor	Effect	Age (years)			Locality type	
		Below 30	30–50	Above 50	Urban	Rural
Price	High	93.5	91.3	87.1	93	89.7
	Medium	6	7.1	8.1	5.7	8.5
	Low	.5	1.6	4.8	1.3	1.8
	Ineffective	0.0	0.0	0.0	0	0
Quality	High	45.2	42.9	53.2	48.3	40
	Medium	38.7	48.4	38.7	43.3	41.2
	Low	16.1	8.7	8.1	8.4	18.8
	Ineffective	0.0	0.0	0.0	0	0
Location of the seller	High	35.5	36.4	30.6	39.6	27.3
	Medium	51.6	58.7	50	57.4	48.5
	Low	12	4.9	16.1	2.7	22.4
	Ineffective	.9	0.0	3.2	.3	2.8
Habit	High	9.2	9.2	6.5	8.7	9.1
	Medium	80.6	87.5	71	83.6	79.4
	Low	8.8	2.7	16.1	6	9.7
	Ineffective	1.4	.5	6.5	1.7	1.8
Personal Relationship with seller	High	41.9	41.3	19.4	44.3	28.5
	Medium	45.6	43.5	46.8	40.9	52.1
	Low	9.7	13	25.8	12.1	15.2
	Ineffective	2.8	2.2	8.1	2.7	4.2
Occasions	High	91.7	90.8	88.7	95	83.6
	Medium	4.1	8.7	3.2	3.4	10.3
	Low	2.8	.5	6.5	1.3	4.2
	Ineffective	1.4	0.0	1.6	.3	1.8
Discount	High	80.2	77.7	69.4	78.9	75.8
	Medium	16.6	19	19.4	17.4	18.8
	Low	3.2	2.7	8.1	3	4.8
	Ineffective	0.0	.5	3.2	.7	.6
Sorting	High	12.4	10.9	12.9	11.4	12.7
	Medium	77.9	79.3	74.2	79.2	75.8
	Low	9.2	8.2	11.3	8.1	10.9
	Ineffective	.5	1.6	1.6	1.3	.6
Word-of-mouth	High	5.1	4.3	4.8	4.4	5.5
	Medium	31.8	32.6	30.6	31.9	32.1
	Low	53	51.1	51.6	51.7	52.7
	Ineffective	10.1	12	12.9	12.1	9.7
Time of purchase	High	82	89.1	69.4	82.2	84.8
	Medium	15.7	7.6	24.2	15.1	10.9
	Low	2.3	1.6	3.2	2	2.4
	Ineffective	0	1.6	3.2	.7	1.8
Display	High	7.4	6	4.8	5.4	8.5
	Medium	58.5	62.5	61.3	59.7	61.8
	Low	29	28.3	27.4	30.9	24.2
	Ineffective	5.1	3.3	6.5	4	5.5
Recommendation of friends	High	16.6	12	12.9	12.8	17
	Medium	39.6	40.2	40.3	43	34.5
	Low	29	37.5	32.3	33.9	30.9
	Ineffective	14.7	10.3	13	10.4	17.6

Source: Result of own research

nearly 45% high effect). While the lowest groups affected by this factor were people with high education level (in nearly 10%) and income group above 80 thousand YRs (9% no effected). It can be indicated that income is very important in the effect of the personal relationship with seller on consumer behaviour.

1.6 Occasions

The religious and social occasions such as holidays (Id) and Ramadan have a great effect on consumer decision making when buying vegetables. In Ramadan the food system is changed because of fasting during daytime, hence consumption of many types of vegetables is increased during this month.

About 99% of respondents were influenced by occasion (in nearly 90% high effected).

1.7 Discount

99% of consumers were influenced by this factor (in nearly 78% was high). When comparing this factor with the individual identification variables, it was revealed that in the individual groups of respondents, the highest effect of discount was mentioned by 81% of people of income category of below 40 thousand YRs; 80% of age category of 30 years and below. On the other hand, the lowest effect of discount was mentioned by 8% of respondents in age group above 50 years.

1.8 Sorting

The effect of sorting was medium for most consumers (approximately 78%); the highest effect of this factor was mentioned by 19% of the monthly income group above 80 thousand YRs; 17% of women,. The lowest effect of sorting was mentioned by 11% for people in age category above 50 and rural resident.

1.9 Word mouth

The effect of this factor was the lowest among all factors have studied in this search; its effect was low for 52% of respondent and infect for 11%. The highest group was effected by word mouth was female by 6%.

1.10 Time of purchase

In Yemen the decision of consumer to buy many types of food depend on the time of purchase; for example in the early date of the month after employ received his or her salary it can be bought some types of vegetables and fruits, but in other time at the same month maybe he/she will not buy the same product specially in the last week of the month. This factor was high for 83% of respondents; the highest group that affected by time of purchase was mentioned by 89% of people in age group 30-50 years; 87% of people in income group below 40 thousand YRs. On the other hand the lowest group affected by this factor was people in income group above 80 thousand YRs (in nearly 60% high effect);

people with high education (in nearly 65% high effect). It can conclude that income is very important in this factor.

1.11 Display

The effect of the way of display products on consumer's decision making when buying vegetable was high for 6.5% of respondents, it was the second lowest effect amongst all factors under study, the effect was medium for approximately 60% of respondents. The highest group affected by this factor was mentioned by 8.5% of people living in rural areas. The influence of this factor wasn't important for 6.5% of consumers in age group above 50 years.

1.12 Recommendation

Recommendation of friends and family one of the social factors influencing consumer behaviour, this factor wasn't important for 13% of consumers and medium effect for 40% of them. The highest group affected by recommendation was mentioned by 19% of people in university; 17% of people in age group below 30 years.

2. The effect on Yemeni consumer behaviour on different individual categories

The obtained results were analysed with the use of the ANOVA test to find if there is any significant difference in the individual factors influencing Yemeni consumer's buying decisions of age, income, education, gender, and settlement type groups. The results are shown in Table VI.

1.2. Income groups

The ANOVA results (Table VI) show that there was no significant difference between the means of the three income groups for the importance of **price, occasions, sorting, word of mouth**, the way of **display products**, and **recommendation** of friend and family. On the other hand there was a significant difference in **quality, habit, personal relationship** between consumer and seller, **discount**, and the **time** of purchase at .01 level, and in **location** of seller at .05 level of the Yemeni consumers behaviour across different **income** segments.

The Scheffe's post-hoc tests were conducted for the mentioned factors to understand the differences between various **income** segments (see Table VII).

The post-hoc results for "**quality**" show that there is a difference amongst income groups below 40 thousand YRs and above 80 thousand YRs ($P = .000$; significant at .01 level) and between income groups 40–80 thousand YRs and above 80 thousand ($P = .011$; significant at .05 level). The post-hoc results for **habit** suggest that there is a significance difference between income groups below 40 thousand YRs and above 80 thousand YRs at .01 level ($p = .000$), and between income groups 40–80 thousand YRs and above 80 thousand YRs ($P = .002$ significant at .01). For factor personal

VI: ANOVA of income, age, education, gender, and location type

Factor	Income		Age		Education		Gender		Location type	
	F	Sig.	F	Sig.	F	Sig.	F	Sig.	F	Sig.
Price	2.665	.071	2.454	.087	2.028	.133	6.265	.013	1.252	.264
Quality	8.720	.000	1.383	.252	7.549	.001	.711	.399	8.130	.005
The location of the seller	3.540	.030	3.220	.041	4.814	.009	15.010	.000	32.502	.000
Habit	9.003	.000	8.125	.000	6.319	.002	.011	.918	.585	.445
Personal relationship with the seller	20.157	.000	10.582	.000	18.730	.000	3.852	.050	8.517	.004
Occasions	.136	.873	1.397	.248	.200	.819	.225	.636	15.107	.000
discount	8.721	.000	3.903	.021	11.229	.000	.135	.714	.786	.376
Sorting	.155	.857	.231	.794	.688	.503	2.457	.118	.000	.989
Word-of-mouth	.644	.525	.109	.897	.057	.944	.286	.593	.461	.497
Time of purchase	10.260	.000	5.231	.006	7.891	.000	.376	.540	.000	.989
Display	.194	.824	.259	.772	.674	.510	.688	.407	1.158	.282
Recommendation	.058	.944	.182	.834	.433	.649	1.047	.307	.683	.409

Source: Result of own research

relationship between seller and buyer the post-hoc results indicate that there is a significance difference between income groups below 40 thousand YRs and 40–80 thousand (P = .033 significant at .05), and amongst income groups below 40 thousand YRs and above 80 thousand YRs (P = .000 significant at .01), and between age group 40 = 80 thousand YRs and above 80 thousand YRs (p = .000 significant at .01). However the post-hoc results for **discount** show that there is a significance difference amongst income groups below 40 thousand YRs and above 80 thousand YRs (P = .000 significant at .01) and between income groups 40–80 thousand YRs and above 80 thousand YRs (P = .006 significant at .01). For **time** of purchase post-hoc results indicate that there is a significance difference between below 40 thousand and above 80 thousand YRs (P = .000 significant at .01), and between income groups 40–80 thousand and above 80 thousand (P = .001 significant at .01).

It can be concluded that the highest significant difference amongst three income categories for the mentioned factors occur between income group less than 40 thousand YRs and above 80 thousand YRs. One the other hand there is no significance difference amongst income categories blow 40 and 40–80 thousand YRs (except relationship between consumer and seller) because the income of both of them is low, so the people in these groups have the same behaviour.

2.2 Age groups

The results in table VI suggest that there is a significant difference in Yemeni consumer behaviour for different age groups at .05 levels for **location of seller** (F (2,462) = 3.220, P = **.041**) and **discount** (F (2,362) = 3.903, P = .021), and at .001 levels for **habit** (F (2,462) = 8.125, P = .000), and personal **relationship** between consumer and

seller (F (2,362) = 10.582, P = .000), and the **time of purchase** decision (F (2,462) = 5.231, P = .006).

Scheffe post-hoc results show that there is significant difference amongst a pair of means below 30 years and above 50 years, P = .022 (≤ 0.05) for **discount**, and between below 30 years and above 50 years (P = .013; significant at .005 level); between age groups 30–50 years and above 50 years (P = .000; significant at .01 level) for **habit**; between age groups 30–50 years and above 50 years (P = .05; significant at .05 level) for **location of seller**; amongst age groups below 30 years and above 50 years group (P = .000 significant at .001 level) and between age groups 30–50 and above 50 years (P = .000 significant at .001 level) for personal **relationship** between seller and consumer; between age groups below 30 years and above 50 years (P = .029; significant at .05 level) and between age groups 30–50 and above 50 years (P = .006; significant at .001 level) for **time** of purchase (see table VIII).

3.2. Education

The significance of effects of the individual factors on Yemeni buying decisions of education groups was tested by means of ANOVA test and the results is shown in table VI. The results suggest that there is a significant difference in individual factors for different education groups at .01 levels for **quality**, **location** of seller, **habit**, personal **relationship** between consumer and seller, **discount**, and **time** of purchase.

The significant difference amongst education groups due to the difference of income for these groups, and the difference in their preferences and tests caused by difference education level particularly between secondary or lower and higher education groups as will be seen in the post-hoc test result for individual factors on Yemeni purchasing decision. The post-hoc test results for the **quality**

VII: Post-hoc analysis for individual factors influence on Yemeni consumer behaviour

Dependent Variable	(I)	(J)	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Quality	1	2	.12077	.06551	.184	-.0401	.2817
		3	.46023*	.11187	.000	.1855	.7350
	2	1	-.12077	.06551	.184	-.2817	.0401
		3	.33947*	.11269	.011	.0627	.6162
	3	1	-.46023*	.11187	.000	-.7350	-.1855
Location		2	-.33947*	.11269	.011	-.6162	-.0627
	1	2	-.12601	.06358	.141	-.2821	.0301
		3	-.24530	.10856	.079	-.5119	.0213
	2	1	.12601	.06358	.141	-.0301	.2821
		3	-.11929	.10936	.552	-.3878	.1493
Habit	3	1	.24530	.10856	.079	-.0213	.5119
		2	.11929	.10936	.552	-.1493	.3878
	1	2	-.04689	.04618	.598	-.1603	.0665
		3	-.33429*	.07885	.000	-.5279	-.1406
	2	1	.04689	.04618	.598	-.0665	.1603
Relation		3	-.28740*	.07943	.002	-.4825	-.0923
	3	1	.33429*	.07885	.000	.1406	.5279
		2	.28740*	.07943	.002	.0923	.4825
	1	2	-.19280*	.07350	.033	-.3733	-.0123
		3	-.78889*	.12551	.000	-1.0971	-.4807
Discount	2	1	.19280*	.07350	.033	.0123	.3733
		3	-.59609*	.12643	.000	-.9066	-.2856
	3	1	.78889*	.12551	.000	.4807	1.0971
		2	.59609*	.12643	.000	.2856	.9066
	1	2	-.08267	.05359	.305	-.2143	.0489
Time		3	-.38048*	.09151	.000	-.6052	-.1558
	2	1	.08267	.05359	.305	-.0489	.2143
		3	-.29781*	.09218	.006	-.5242	-.0714
	3	1	.38048*	.09151	.000	.1558	.6052
		2	.29781*	.09218	.006	.0714	.5242
Time	1	2	-.06781	.05027	.403	-.1913	.0556
		3	-.38876*	.08584	.000	-.5996	-.1780
	2	1	.06781	.05027	.403	-.0556	.1913
		3	-.32095*	.08647	.001	-.5333	-.1086
	3	1	.38876*	.08584	.000	.1780	.5996
	2	.32095*	.08647	.001	.1086	.5333	

Source: Result of own research

*. The mean difference is significant at the 0.05 level

variable show that there is a significant difference at level .01 between secondary and lower education and higher education $P = .001$ and between university education and higher education $P = .005$. However For **location of seller** there is significant difference at level .05 between secondary and below education and university education groups $P = .038$. For **habit** the difference amongst secondary and below education and higher education $P = .002$, and between university education and higher education groups $P = .008$ both of them are significant at level

.01. For factors **discount** and **relationship** between consumer and seller there is significance difference at .01 level amongst secondary and lower education group and higher education, and between university group and higher education level ($P = .000$). For **time** of purchase the difference is significant at .01 level between secondary and lower education group and people with high education level ($p = .000$), and at .05 level between university education and high education groups $P = .016$; significance.

VIII: Post-hoc analysis for individual factors influence on Yemeni consumer behaviour

Dependent Variable	(I) age	(J) age	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Discount	1	2	-.03045	.05554	.860	-.1669	.1059
		3	-.22120*	.07982	.022	-.4172	-.0252
	2	1	.03045	.05554	.860	-.1059	.1669
		3	-.19074	.08139	.065	-.3906	.0091
	3	1	.22120*	.07982	.022	.0252	.4172
		2	.19074	.08139	.065	-.0091	.3906
Habit	1	2	.07739	.04746	.266	-.0392	.1939
		3	-.20276*	.06820	.013	-.3703	-.0353
	2	1	-.07739	.04746	.266	-.1939	.0392
		3	-.28015*	.06955	.000	-.4509	-.1094
	3	1	.20276*	.06820	.013	.0353	.3703
		2	.28015*	.06955	.000	.1094	.4509
Location	1	2	.09863	.06527	.320	-.0617	.2589
		3	-.13594	.09379	.351	-.3663	.0944
	2	1	-.09863	.06527	.320	-.2589	.0617
		3	-.23457	.09564	.050	-.4694	.0003
	3	1	.13594	.09379	.351	-.0944	.3663
		2	.23457	.09564	.050	-.0003	.4694
Relation	1	2	-.02815	.07689	.935	-.2170	.1607
		3	-.49309*	.11049	.000	-.7644	-.2217
	2	1	.02815	.07689	.935	-.1607	.2170
		3	-.46494*	.11267	.000	-.7416	-.1882
	3	1	.49309*	.11049	.000	.2217	.7644
		2	.46494*	.11267	.000	.1882	.7416
Time	1	2	.04516	.05212	.687	-.0828	.1732
		3	-.20046*	.07490	.029	-.3844	-.0165
	2	1	-.04516	.05212	.687	-.1732	.0828
		3	-.24562*	.07637	.006	-.4332	-.0581
	3	1	.20046*	.07490	.029	.0165	.3844
		2	.24562*	.07637	.006	.0581	.4332

Source: Result of own research

*. The mean difference is significant at the 0.05 level

** 1 below 30, 2 (30–50) years, 3 above 50 years

It can be concluded that the highest difference between education groups (significant at .01 level) for the individual factors quality, habits, personal relationship with seller, discount, and the time of purchase was between secondary and below education level group and higher education, because the high gap between the income (salary) between two segments.

4.2. Gender groups

The results of ANOVA analyses in table VI show that there was no significant difference in the factors influencing Yemeni consumer behaviour between male and female for quality, habit, occasions, discount, sorting, word mouth, time of purchase, the way of display vegetables, and recommendation of friends and family. On the other hand there was a significant difference at .05 levels for **price** P = .013

and personal **relationship** between consumer and seller P = .05, and at .01 level for **location** of seller P = .000.

5.2. Settlement type

The results of ANOVA analysis suggest that there was a significant difference in individual factors influencing Yemeni consumers behaviour for people who live in urban and rural areas at .01 levels for **quality** P = .005 and for the **location** of seller P = .000 and for personal **relationship** between consumer and seller P = .004 and for **occasions** such as Ramdan and holydays (Id). On the other hand Yemeni consumer in rural and urban have the same behaviour for factors price, habit, discount, sorting, word mouth, time of purchase, the way of display products, and recommendation of friends and family (see table VI).

IX: Post-hoc analysis for individual factors influence on Yemeni consumer behaviour

Dependent Variable	(I) education	(J) education	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Quality	1	2	.03027	.07146	.914	-.1452	.2058
		3	.40527*	.10485	.001	.1478	.6628
	2	1	-.03027	.07146	.914	-.2058	.1452
		3	.37500*	.11380	.005	.0955	.6545
	3	1	-.40527*	.10485	.001	-.6628	-.1478
		2	-.37500*	.11380	.005	-.6545	-.0955
Location	1	2	-.17729*	.06899	.038	-.3467	-.0079
		3	-.22677	.10122	.082	-.4753	.0218
	2	1	.17729*	.06899	.038	.0079	.3467
		3	-.04948	.10986	.904	-.3193	.2203
	3	1	.22677	.10122	.082	-.0218	.4753
		2	.04948	.10986	.904	-.2203	.3193
Habit	1	2	-.01045	.05053	.979	-.1345	.1136
		3	-.26045*	.07414	.002	-.4425	-.0784
	2	1	.01045	.05053	.979	-.1136	.1345
		3	-.25000*	.08046	.008	-.4476	-.0524
	3	1	.26045*	.07414	.002	.0784	.4425
		2	.25000*	.08046	.008	.0524	.4476
Relation	1	2	-.05218	.08021	.809	-.2491	.1448
		3	-.71625*	.11768	.000	-1.0052	-.4273
	2	1	.05218	.08021	.809	-.1448	.2491
		3	-.66406*	.12772	.000	-.9777	-.3504
	3	1	.71625*	.11768	.000	.4273	1.0052
		2	.66406*	.12772	.000	.3504	.9777
Discount	1	2	-.01571	.05801	.964	-.1582	.1267
		3	-.39852*	.08511	.000	-.6075	-.1895
	2	1	.01571	.05801	.964	-.1267	.1582
		3	-.38281*	.09237	.000	-.6097	-.1560
	3	1	.39852*	.08511	.000	.1895	.6075
		2	.38281*	.09237	.000	.1560	.6097
Time	1	2	-.06628	.05497	.484	-.2013	.0687
		3	-.31889*	.08065	.000	-.5169	-.1208
	2	1	.06628	.05497	.484	-.0687	.2013
		3	-.25260*	.08753	.016	-.4676	-.0376
	3	1	.31889*	.08065	.000	.1208	.5169
		2	.25260*	.08753	.016	.0376	.4676

Source: Result of own research

*. The mean difference is significant at the 0.05 level

SUMMARY

The main aim of the paper is to understand factors influencing consumer behavior when buying vegetables in Republic of Yemen.

Based on the results of the analysis it can be concluded that:

Hypothesis 1 has been confirmed which means that Yemeni consumers have influenced by all factors that have been studied.

Hypotheses 2 also has been confirmed. Following factors like price, occasions, discontent, and time of purchase showed a high degree of influence, while factors habit, display, sorting, and the location of seller suggests medium influence, and the influence was low for word-mouth, and high and medium for factors quality and personal relationship with seller, and medium and low for recommendation. The results of ANOVA test suggest that there was a significant difference amongst consumer's categories, and income was the most important reason for this difference.

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