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IMPACT OF STORE ATMOSPHERE ON IMPULSE BUYING BEHAVIOR OF UZBEK CUSTOMERS

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Abstract: Today, most retailers know that impulse purchasing is one of the most crucial concept in consumer behavior, and from 40% to 80% of all purchases depending on product category are took place by impulse buying behavior [1, 2]. Variety of factors – personal, situational, product related that influence on impulse purchasing behavior of customers [3]. In some cases, environment of the store has more power in promoting customers in buying decision than product itself [4]. Store atmosphere includes lighting, color, sound, signage, scent, taste [5].

Key words: impulse buying, signage, smell, light, consumer behavior.

Introduction
Impulse buying accounts for a sizeable percentage of all purchases according to recent industry research. And primary objective in retailing is to increase impulse temptation of consumers to enhance sales [6,7]. Canadian grocery chain observed that its profitability would increase by more than 40% if each customer purchased an additional item on impulse [8].

Many researchers until now investigated impulse buying and its antecedents including individuals’ impulse buying tendency [1], impulse buying traits [9], consumer impulsiveness scale [6], product involvement [10], situational factors such as time and money availability [1], in-store advertisements [11], in-store signage [12], in-store slack [13], display [14], and type of food consumed [15]. Majority of these studies were conducted in North America, Europe and Asia. There is still little or no research on Central Asian consumers who have unique peculiarities, characteristics, culture and buying habits formed living both in centrally planned and free market economies.
This study aims to quantitatively investigate the relationship between dimensions of store atmosphere and impulse purchases of Uzbek consumers in grocery shopping. More specifically, identify the most influential factor that impacts on impulse buying behavior. Also, current research examines differences in impulse buying behavior of male and female consumers.

**Literature Review**

1. **Impulse buying**

Impulse buying is a sudden, compelling, hedonically complex purchase behavior in which the speed of the impulse purchase decision precludes any thoughtful, deliberate consideration of alternatives or future implications [16, 17, 18]. Impulse buying is more emotional than rational, which is why it is why it is normally used by states of intense feeling. It is powerful and persistent urge to buy something immediately [17]. The purchase is unintended because it is made while shopping, although the individual was not actively looking for that item, had no pre-shopping plans to buy the item, and was not involved with a shopping task, such as searching for a gift [19].

Although impulse buying behavior is classified as unplanned, research findings suggest that unplanned purchases cannot be always classified as an impulse buy [7, 20]. There are mainly two differences. First, unplanned purchases may happen when customer has a need for the product but did not include it to shopping list. Second, unplanned purchases do not necessarily accompany by strong positive feelings and urge [21]. Impulse buying in its turn can be categorized using three criteria. First, it is spontaneous and followed by improved mood and gratification. Second, urge during an impulse buy is extremely powerful and difficult to resist [9, 17, 22, 23]. Third, the individual making an impulse buy shows a diminished regard for any costs or consequences [23].

2. **Factors influencing on impulse buying**

Stern (1962) [19] characterized nine factors affecting impulse buying:

1 – Low price;
2 – Marginal need for item;
3 – Mass distribution;
4 – Self service;
5 – Mass advertising;
6 – Prominent store display;
7 – Short product life;
8 – Small size or light weight;
9 – Ease of storage.

In addition, there are other studies that investigate the role of various factors on impulse buying. First group of factors are related with customers’ personal feelings or emotions [24]; second with product itself [25]; and third with situation. Amos et al (2014) in their turn classified independent impulse buying variables into three categories: dispositional, situational, and socio-demographical [21].

2.1. **Personal factors**

All factors which are associated with person who is shopping, his feelings, educational experience and mood states are grouped to this category. Previous researches have shown that different factors from this group impact impulsive purchasing behavior, including the presence of others, the consumer’s mood, trait impulsiveness, product category impulsiveness, individual and environmental touch, self-identity, cultural
orientation [26], as well as demographic characteristics such as gender and age. Shoppers under 35 – millennials - are more prone to impulse buying compared to those older than 35 years.

Behavior of men and women are different in terms of shopping preferences on many levels [27]. Some researchers claim that women are more active in impulse purchasing than their male counterparts [28, 29], but opposite site of researchers [30] debated male customers buy more impulsively than female customers. Behavior of women is impacted by advertising, displays, atmosphere, promotions and approach of the personnel [31, 32]. In contrast, Akram et al. (2016) state that men pay attention products what they need and try to finish shopping fast with slight level of commitment, hence, women make more impulse purchases then men [33].

- H1. There is impact of gender on impulse buying behavior of customers.

2.2. **Product related factors**

Product related influences are product appearance and design. Retailers can increase the number of impulsive purchases through product displays, store and packaging designs, and contemporary marketing innovations (example, 24-hour convenience stores, television shopping channels, and internet shopping) [34]. Other additional buying motivators are the price discounts or sales [35].

2.3. **Situational factors**

Store accessibility, sales staff, time available for shopping, interior design of shopping area, arrangement of equipment and merchandise within the store, display of merchandise, point of sale promotional materials are main factors in third group.

According to researchers who support situational factors, impulse purchasing is influenced strongly by enjoyable and stimulating store environment and that “pleasant environment contributed to unplanned shopping and prepare the customer to make a sudden decision to buy a product” [30, 36].

**Figure 1. Factors affecting impulse buying**

*Source: Author’s own research*
3. **Store atmosphere**

Store environment consist of ambient factors and is defined as “the effort to design buying environments to produce specific emotional effects in the buyer that enhance his purchase probability” [4]. Store atmosphere is captured by sense, thus features of store environment are defined by sensory terms, and main elements of them are sight, sound, scent and touch. Elements of store atmosphere are: color, size, shape, temperature in store, layout, signs, symbol [37], assortment, availability and effectiveness of salesperson [38], cleanliness of store, merchandise’s display [39].

3.1. **Signage**

According to many marketing researchers, retailers should maximize their effort to visual factors in store to attract and impact on shopping behavior of customers to make purchase. Vision sense of customers is the most influential factor, because 83% of information is received by seeing to the brain [40]. Signage is one of the most effective [41] and assistant factor of visual characteristics in retailing store. Experiment with coffee shows that using signs in aisles increase sales of coffee by two times [42]. Signage is especially powerful stimulation tool for discounted prices. Combination of signage and discounted prices in coffee experiment increased sales up to 3.5 times. This is due to significant relationship between promotional signage and impulse buying behavior [43]. When customer sees the discounted price tag, he or she tries to buy it to capture a chance of saving money although it is unplanned and unneeded product.

- H2. There is impact of signage (shelf-talker) on impulse buying behavior of customers.

3.2. **Sound**

Sound is one of the main sensitive factors that enhance the product delivery to customer. Music is a major, frequent and common factor that instinctively encourages mood and creates positive impression on impulse buying behavior [33]. Experiment with music showed that when slow music played, sales increased by 38% compared with fast music [44]. When shopper listen pleasant background music, they spend more time than usual, and consequently buy more products than planned. Music is an important non-verbal communication with customer used to boost store atmosphere and persuade impulse buying [45].

- H3. There is impact of background music on impulse buying behavior of customers.

3.3. **Scent**

Scent in store might be of two types: smell of the certain product and smell of the environment [46]. In food, beverages, cosmetics and cleaning products customer can easily evaluate quality of product by smelling it [47]. Smell associations of women and men are different. For example, smell of lavender gives relaxing effect on women, but it arouses men [35].

Scent influences on customer’s mood and emotions, makes them stay longer in store, feel excited and purchase more products [48]. Customers spend more time in store if there is a good music and scent [49].

- H4. There is impact of scent on impulse buying behavior of customers

**Research Methodology**

Survey was conducted in two large Uzbek supermarket chains, namely Makro and Korzinka.uz. Convenience sampling technique was applied to select respondents, as this
type of technique is reliable and easy for choosing customers randomly in shopping locations [50]. Data was collected from 150 respondents over two weeks’ period.

Structured questionnaire consists of 14 questions and was prepared in Uzbek, Russian languages. Questions were prepared using five-point Likert scale, ranging from 1 – Strongly disagree to 5 – Strongly agree. Questionnaire consist of three parts:

- Part 1: questions on demographics, gender, age, number of visits and spending time of customer in supermarkets.
- Part 2: questions to determine how customers are exposed to impulse buying and how they behave in certain situation under influence of store atmospheres.
- Part 3: questions on independent variables of research.

Collected data was analyzed in STATA using ordinal logistic regression to determine which individual independent variable has statistically significant influence on dependent variable. Additionally, Chi2 test was done to determine relationship between variables of research.

**Conceptual Model**

\[
\text{Consumer Impulse Purchase} = \beta_1 \text{gender} + \beta_2 \text{signage} + \beta_3 \text{music} + \beta_4 \text{smell} + \beta_5 \text{age} + \beta_6 \text{spending time}
\]

**Analysis and Results**

**Descriptive Statistics**

The sample had almost similar proportions of male (48%) and female (52%) participants.

![Figure 2. Gender of participants](image)

![Figure 3. Age of participants](image)
According to figure 4, 71% of respondents purchase more products than they initially planned.

**Hypothesis Testing**

**Hypothesis 1.**

H0 = There is no relationship between gender and impact of signage on impulse buying behavior

H1 = There is relationship between gender and impact of signage on impulse buying behavior

<table>
<thead>
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<th>Value</th>
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</thead>
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<tr>
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<tr>
<td>Cramer’s V</td>
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<tr>
<td>Gamma</td>
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</tr>
<tr>
<td>Kendall’s tau-b</td>
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</tr>
</tbody>
</table>

**Table 1. Chi2 test to check relationship between gender and impulse buying**

p value is 0.04, that is less than 5%, accordingly null hypothesis is rejected and alternative one is accepted which means there is statistically significant relationship between gender and impulse buying.

**Hypothesis 2.**

H0=There is no relationship between signage and impulse buying behavior of customers.

H1=There is a relationship between signage and impulse buying behavior of customers.

<table>
<thead>
<tr>
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<th>Value</th>
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</thead>
<tbody>
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<tr>
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<td>Cramer’s V</td>
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<td>Gamma</td>
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<tr>
<td>Kendall’s tau-b</td>
<td>-0.0207</td>
</tr>
</tbody>
</table>

**Table 2. Chi2 test to check relationship between signage and impulse buying**

p value is 0.025, that is less than 5%, accordingly null hypothesis is rejected and alternative one is accepted which means there is statistically significant relationship between signage and impulse buying.
**Hypothesis 3.**

H0=There is no relationship between background music and impulse buying behavior of customers.

H1=There is a relationship between background music and impulse buying behavior of customers.

<table>
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<th>Value</th>
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<td>Cramer’s V</td>
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<tr>
<td>Gamma</td>
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<tr>
<td>Kendall’s tau-b</td>
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</table>

**Table 2. Chi2 test to check relationship between music and impulse buying**

p value is 0.038, that is less than 5%, accordingly null hypothesis is rejected and alternative one is accepted which means there is statistically significant relationship between background music and impulse buying.

**Hypothesis 4.**

H0=There is no relationship between scent and impulse buying behavior of customers.

H1=There is a relationship between scent and impulse buying behavior of customers.

<table>
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<th>Value</th>
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<tr>
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<td>Cramer’s V</td>
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<td>Gamma</td>
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<tr>
<td>Kendall’s tau-b</td>
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</tr>
</tbody>
</table>

**Table 4. Chi2 test to check relationship between scent and impulse buying**

p value is 0.000, which is less than 5%, therefore we reject H0 and accept H1, which means there is statistically significant relationship between scent and buying more product than planned.

**Regression**

According to table 5, gender, pleasant music, attractive smell, age and spending time are statistically significant and their p values are less than 5%. While signage, is statistically insignificant with p>0.05.

| Impulse buying | Coef. | Std.Err. | z     | p>|z| | [95% Conf. Internal] |
|----------------|-------|----------|-------|-----|------------------------|
| Gender         | -1.522342 | .6126604 | -2.48 | 0.013 | -.2.723134 | -.3215491 |
| Signage        | -.1729861 | .2765152 | -0.63 | 0.603 | -.7.149459 | .3689736 |
| Pleasant_music | 1.120675 | .3168953 | 3.54  | 0.000 | .4995717 | 1.741778 |
| Attractive_smell | 5.527134 | .2495435 | 2.22  | 0.031 | .0641412 | 1.041286 |
| Age            | .8241946 | .2495435 | 3.30  | 0.001 | .3350984 | 1.313291 |
| Spending_time  | 1.196521 | .3173212 | 3.77  | 0.000 | .5745829 | 1.818459 |

**Table 5. Regression analysis**
Ordered logistic regression for the research is:

\[
\text{Consumer Impulse Purchase} = -1.52\text{gender} - 0.17\text{signage} + 1.12\text{music} + 0.55\text{smell} + 0.82\text{age} + 1.19\text{spending time}
\]

As p value 0.603 greater than 5%, therefore we accept null hypothesis, which means signage does not have statistically significant impact on impulse buying behavior:

- H0 = There is no impact of signage on impulse buying
- H1 = There is impact of signage on impulse buying

On the other hand, it is evident from regression, customers buy products impulsively due to effect of pleasant background music, because enjoyable music make customers stay longer in supermarket and spend more money. Results shows that there is statistical significant impact of music on buying more product than planned, which p value is 0.000 (p<5%), thus we reject null hypothesis and accept alternative one:

- H0 = There is no impact of pleasant music on impulse buying
- H1 = There is impact of pleasant music on impulse buying

Similarly, attractive smell also has statistical significant impact on impulse buying. As p value is 0.031 (p<5%), then we reject H0 and accept H1:

- H0 = There is no impact of smell on impulse buying
- H1 = There is impact of smell on impulse buying

Gender also has statistical significant impact on impulse buying. As p value is 0.013 (p<5%), then we reject H0 and accept H1:

- H0 = There is no impact of gender on impulse buying
- H1 = There is impact of gender on impulse buying

**Conclusions and Recommendations**

53% of respondents agreed and 18.33% strongly agreed that signage makes them purchase unplanned products. It means majority of people purchase impulsively due to signage. For example, if there is a discount for a product in the shelf and consumer notices it, s/he tries to buy the product in order not to lose a chance.

During shopping, background music positively influences on consumer’s mood, making them spend more time and money in retail stores. Age is important factor in perceiving music. Older people do not pay attention to the music in the store and most of them were neutral to music in current research. Furthermore, respondents of above 50-years-old do not tolerate loud music and they may exit the store even without buying product. Similar results were observed in Yalch and Spangenberg’s research [49].

Presence of ambient scent in store is another way of attracting customers to buy a product. Majority of consumers evaluate quality of food products based on its scent, because when product smells pleasant, it means that product is fresh. Chi2 test results of the research represents that scent has relationship with impulse buying, because approximately half (48.33% both agree and strongly agree) of the respondents stated pleasant scent influence positively to their buying behavior. Similar results were exposed in Grohmann et al’s (2007) and Matilla and Wirtz (2001) researches [51, 52].
Although signage, music and smell have statistically significant association with impulse buying (p=0.25, p=0.38, p=0.000), but only music and smell have statistically significant impact on impulse buying (p=0.000, p=0.031). On contrary Ballantine et al. (2010) and Patil and Agadi (2016) stated that signage with discount price information is the best tool to attract shoppers’ attention and it easily stimulate them to buy product impulsively. Scent is a determinant how consumers evaluate store environment and product quality. Therefore, in supermarkets artificial smell is used to attract consumers’ attention to different products, mainly food.

Interestingly, there is difference between male and female consumers in making impulse buying. Regression analysis indicates that there is an influence of gender on impulse buying behavior of consumers. Female shoppers are prone to impulse buying more than males [53, 54]. However, some researcher did not found enough evidence to support their research hypothesis, which there is impact of gender on impulse buying behavior [33, 55].

Research results suggest retailers pay more attention to developing internal environment of supermarkets in order to influence on consumers’ behavior and enhance their shopping experience. This may lead to competitive advantage and attract more consumers. Effective usage of in-store scent, signage and music may motivate customers to buy more products impulsively.

References:


