Consumer Shopping Behaviour Among Modern Retail Formats

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THE objective of this study is to analyze consumer shopping behaviour in different retail formats. Consumer shopping behaviour presents using shopping intention, attitude towards modern retail outlet and shopping habit. Self administered questionnaire was used to collect data. Data was collected from five different retail formats, i.e. hypermarket, supermarket, departmental store, mini market and convenience store. Consumer shopping behaviour is modeled using Structural Equation modeling (SEM), and the difference of behaviour among retail format was tested using multi level Lisrel software. It’s found, as can be seen on consumer shopping model, the effect of attitude towards modern retail outlet and shopping habit on shopping intention. However, it’s found that there is no difference in this behaviour among hypermarket, supermarket, and mini market.

Key Words: Convenience Goods, Shopping Intention, Attitude toward Modern Retail Outlet, Shopping Habit.

Introduction
Modern retail business in Indonesia increasingly view other retail formats since 1990’s. Even though Indonesia faced economic crisis since 1998, retail growth still continue rising. Not just format added, but also outlets and chains. The impact of this growth is competition among retail format and among chains is getting tough. They compete not only among retail formats but also among modern retail chains and outlets. This competition, forces retailers to understand consumer shopping behaviour and so that they can win the competition. Research on consumer shopping behaviour in Indonesia on modern retail is rarely conducted. Only few publications can be found.

Retail format growing recently in Indonesia, categorized into five formats, as BIRO (2001) defines. They are convenience store, mini market, supermarket, departmental store and hypermarket. Convenience store is small in nature, offer few products. It’s concentrated in convenience goods with limited brands. Mini market bigger than convenience store in size, but still limited in product brands. Same with convenience store, mini market product offers focus on convenience goods. Department store is bigger in nature than mini market, with varied products. Departmental store is a large retail store offering a variety of merchandise and services and organised in separate departments. Consumer can find shopping goods along with convenience goods in a department store. Supermarket is a large self-service food store selling groceries, meats, household goods, and so on, usually on cash-and-carry basis. To be classified as a supermarket, it is necessary to have sales of at least $ 2 million. Hypermarket is a variation of a supermarket that offers a variety of nonfood items, such as appliances, clothing, and services, along with food items, in a vast space much larger than a regular supermarket, sometimes in excess of 200,000 square feet; also called superstore. The grocery items are often priced below market to draw traffic into the store; however, the grocery selection is also more limited than in a regular supermarket.

Mini market usually operates in housing community and very close in distance from one to another. It’s not surprising to find more than one mini market in less than 1 km of distance. As a contrast reverse, hypermarket might be found only one in a small town. From the point of view of distance, we might hypothesize that consumers visit mini market more frequently than hypermarket, as they by pass the outlet on their departure or arrival into housing community. In accordance with that, shopping expenditure in a mini market is smaller than in a hypermarket.

Build up targeting market is not enough just to consider their demography, as most of research interested in before. Demography characteristic shows only what they are, not what they interest, or what they need. More than demography is needed, such as individual determinant influencing on
decision making. Considering the competition among format and decision making process, so that, we can formulate the problem to be solved as are there any differences of consumer behaviour among modern retail format?

**Theoretical Background**

Researches on retail consumer shopping behaviour were conducted extensively by researchers, in conjunction with the growth of modern retail and shopping center. Most research focused on shopping decision regarding retail patronage (Fox et al. 2004, Bell et al. 2000, Arnold, Ma and Tigert, 1978; Arnold and Tigert, 1982; Arnold, Oum and Tigert, 1983; Walters and Rinne, 1986; Kumar and Leone, 1988; Walters and MacKenzie, 1988; Walters, 1991; Barnard and Hensher, 1992; Bell and Lattin, 1998, and shopping expenditures (Fox et al. 2004, Bell et al. 2000). Some of the previous researches investigated the importance of retail prices and promotions on shopping behaviour (Arnold et al., 1978; Arnold and Tigert, 1982; Arnold et al., 1983; Walters and Rinne, 1986; Kumar and Leone, 1988; Walters and MacKenzie, 1988; Walters, 1991; Barnard and Hensher, 1992; Bell and Lattin, 1998; Bell et al., 1998).

Another marketing policy which has been shown to affect shopping behaviour and patronage pattern is product assortment (Reilly, 1931; Huff, 1964; Brown, 1989). Virtually all models of retail competition (Hoteling, 1929; Reilly, 1931; Huff, 1964; Hubbard, 1978; Brown, 1989) and shopping behaviour (Barnard and Hensher, 1992; Arentze, Borgers, and Timmermans, 1993; Dellaert, et al. 1997) specify store patronage as a function of the distance from the store to the shopper’s home.

Complementary experimental research by Alba et al. (1994, 1999) shows that consumers are indeed able to distinguish between such formats and form stable impressions about them. Combining these ideas from previous work leads to a relatively straightforward prediction regarding the effect of format preference on expenditure elasticity. HILO shoppers are more responsive in their expenditure decisions precisely because there is more variance in the environment (Ho et al. 1998) and because increased flexibility in category purchases is a rational response to increased variance (Bell and Lattin 1998).

Very few of researches are conducted regarding store visit frequency. Ho et al. (1998) show that for a rational cost-minimizing consumer, the frequency of store visits and the average quantities purchased per visit are driven by price variability.

**Research Method**

**Research Object and Location**

Research location is modern retail operated in Jakarta, Bogor, Depok, Tangerang dan Bekasi (Jabodetabek), which according to BIRO (2001) is classified into convenience store, mini market, department store, supermarket and hypermarket. Jabodetabek area was chosen due to population density and modern retail outlet being concentrated in this area, as shown in Table 1. According to BIRO (2001), Jakarta, Bogor, Bekasi, Depok, dan Tangerang are more attractive towns for modern retail.

Goods which are sold by each retail format are varied. However, consumer shopping behaviour towards varied goods will be also varied, especially between convenience and complex goods. As a result, consumer shopping behaviour considered in this research focus only on convenience goods, such as toiletries, soft drink, milk product, detergent, floor cleaner, snacks, instant noodle, vegetables, fresh fish, fruits, fresh meat, margarine, and cooking oil. Those goods were chosen based on consideration that all these goods are categorized into consumer shopping decision with low involvement and inertia.

<table>
<thead>
<tr>
<th>Supermarket</th>
<th>Dept. Store</th>
<th>Mini market*</th>
<th>Hypermarket</th>
<th>Total</th>
</tr>
</thead>
</table>

Table 1: Modern Retail Outlet in Jakarta and Neighbourhood in 2001
<table>
<thead>
<tr>
<th>Town</th>
<th>Outlet</th>
<th>%</th>
<th>Outlet</th>
<th>%</th>
<th>Outlet</th>
<th>%</th>
<th>Outlet</th>
<th>%</th>
<th>Outlet</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>DKI Jakarta</td>
<td>182</td>
<td>28.8</td>
<td>113</td>
<td>26.0</td>
<td>375</td>
<td>50.9</td>
<td>17</td>
<td>34.7</td>
<td>687</td>
<td>37.1</td>
</tr>
<tr>
<td>Tangerang</td>
<td>41</td>
<td>6.5</td>
<td>29</td>
<td>6.7</td>
<td>101</td>
<td>13.7</td>
<td>5</td>
<td>10.2</td>
<td>176</td>
<td>9.5</td>
</tr>
<tr>
<td>Bekasi</td>
<td>20</td>
<td>3.2</td>
<td>15</td>
<td>3.4</td>
<td>35</td>
<td>4.7</td>
<td>4</td>
<td>8.2</td>
<td>74</td>
<td>4.0</td>
</tr>
<tr>
<td>Bogor**</td>
<td>21</td>
<td>3.3</td>
<td>14</td>
<td>3.2</td>
<td>14</td>
<td>1.9</td>
<td>3</td>
<td>6.1</td>
<td>52</td>
<td>2.8</td>
</tr>
<tr>
<td>Sub total</td>
<td>264</td>
<td>41.7</td>
<td>171</td>
<td>39.3</td>
<td>525</td>
<td>71.2</td>
<td>29</td>
<td>59.2</td>
<td>989</td>
<td>53.3</td>
</tr>
<tr>
<td>Others</td>
<td>369</td>
<td>58.3</td>
<td>264</td>
<td>60.7</td>
<td>212</td>
<td>28.8</td>
<td>20</td>
<td>40.8</td>
<td>865</td>
<td>46.7</td>
</tr>
<tr>
<td>Indonesia</td>
<td>633</td>
<td>100.0</td>
<td>435</td>
<td>100</td>
<td>737</td>
<td>100.0</td>
<td>49</td>
<td>100.0</td>
<td>1855</td>
<td>100.0</td>
</tr>
</tbody>
</table>

*including convenience store
**including Depok area

Source: BIRO (2001)

**Data, Variable and Research Model**

Data is categorized into primary data, in which modern retail consumer is respondent. Respondents are those consumers who perform convenience goods shopping in convenience store, mini market, department store, supermarket, and hypermarket.

Research variables are shopping habit, attitude towards modern retail outlet and shopping intention. Past behaviour, acting frequencies particularly, is used as indicator of habit. Price competition consideration is used as indicator to attitude. Intention is measured with regards to frequencies and expenditure planning for next month.

All above variables are measured using semantic differential. Variables and their operational definitions are shown in Table 2.

Structural equation modeling of research model is shown in Figure 1. Two hypotheses were formulated and need to be tested. Research hypotheses are:

1. As can be seen from Figure 1, the first hypothesis to be tested is “attitude towards modern retail outlet and shopping habit influence shopping intention.”

2. There are differences in consumer shopping behaviour among different modern retail format.

**Table 2: Research Variables and Operational Definition**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Operational Definition</th>
<th>Attribute</th>
<th>Measurement Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Habit</td>
<td>An acquired pattern of behavior that often occurs automatically.</td>
<td>1. Modern retail outlet visiting during last five months.</td>
<td>Interval</td>
</tr>
<tr>
<td></td>
<td>Perform activity five times continuously, known as habit or loyalty (Sirohi, 1998)</td>
<td>2. Mean expenditure in one shopping visitation on last period.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Mean shopping frequencies per one month on last period.</td>
<td></td>
</tr>
<tr>
<td>Attitude</td>
<td>A hypothetical construct that represents an individual’s like or dislike for an item.</td>
<td>1. Patronage choice opinion based on price offer.</td>
<td>Interval</td>
</tr>
<tr>
<td></td>
<td>Attitudes are positive, negative or neutral</td>
<td>2. Expenditure opinion.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Frequencies opinion.</td>
<td></td>
</tr>
</tbody>
</table>
views of an “attitude object”; i.e., a person, behavior or event.

<table>
<thead>
<tr>
<th>Intention</th>
<th>Shopping plan for 30 days ahead</th>
<th>1. Repetition of shopping visitation intention on next shopping trip.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2. Expenditure planning for one shopping trip.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Shopping frequencies planning for one 30 days period.</td>
</tr>
<tr>
<td>Retail Outlet</td>
<td>Modern retail outlet visited on the last shopping trip.</td>
<td>Modern retail outlet visited on the last shopping trip.</td>
</tr>
</tbody>
</table>

**Demography Variables**

<table>
<thead>
<tr>
<th>Age</th>
<th>Respondent age</th>
<th>Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>Highest level education of respondent</td>
<td>Ordinal</td>
</tr>
<tr>
<td>Size</td>
<td>Family size</td>
<td>Family size live in the same house</td>
</tr>
<tr>
<td>Job</td>
<td>Respondent job</td>
<td>Respondent job primary</td>
</tr>
<tr>
<td>Gender</td>
<td>Respondent gender</td>
<td>Nominal</td>
</tr>
</tbody>
</table>

![Diagram](image)

**Figure 1: Structural Diagram of Research Variables**

**Research Instrument**
A self-administered questionnaire containing the various measures of shopping intention, attitude towards retail, shopping habit and modern retail outlet visited on the last shopping trip was prepared. A five-point bipolar scale with anchors points was provided to assess the participants’ reactions to almost each item. Few of it assessed by providing choice with interval number or frequency. In addition to that, questionnaire also assembled with demography questions.

**Data Collection**
This research is classified as empirical research. Not like research instrument used by Fox et al. (2004) in USA, this research used questionnaire as research instrument, in which Fox et al. (2004) used consumer panel data. Panel data used is different from panel data used by previous research, in which fox et al. research, respondents were deployed with scanner to be used at home after shopping. Every product bought was scanned again as soon as arrived at home. Bell et al. (2000) also used panel data, but not scanner. Both research used data collected by Information Resources Inc (IRI).
Some of previous researcher used questionnaire as research instrument, such as Torres, Summers and Belleau (2001), Thang and Tan (2003), Dawson, Stern, Gillpatrick (1990), Guiltinan and Monroe (1980). Another data collection method used by Otnes and Mary (2002) in their research. They employed observation in six years period and interviewed 12 of respondents deeply.

Employ panel data can’t explore psychology variables perfectly, such as attitude towards modern retail outlet, shopping habit and shopping intention. Those variables could be explored rightly using questionnaire, either with self administered questionnaire or personal interview. That is, why, instrument used in this research is questionnaire. Questionnaire is in open and close format.

The participants of the survey were recruited through convenience sampling. That is, questionnaires were distributed to person who is in charge in household shopping. Data was collected in two stages. The purpose of first stage questionnaire is to measure consumer shopping behaviour based on perception, experiences, attitude, habit, and intention. On the other hand, second stage conducted to measure action during one month after filling out the first stage. First stage questionnaire was distributed in shopping center and offices. It was filled out on the spot. It took 10 to 15 minutes when self administered questionnaire deployed, and up to 30 minutes when interview deployed. Interview were mostly deployed when questionnaire were distributed in shopping center. Self administered questionnaire were deployed when it was distributed in offices.

**Data Analysis**

First step on data analysis was validity and reliability tests of questionnaire. This test was performed using SPSS software. In order to perform this test, 30 questionnaires were distributed to consumers. After finding valid and reliable questionnaire, research data collection was conducted. Modeling consumer behaviour on modern retail was done by following these steps:

1. Construct validity test using Confirmatory Factor Analysis (CFA) Lisrel 8.5 of the three latent variables.
2. Estimating path model that specify the relationship among shopping intention, attitude towards modern retail outlet, and shopping habit.
3. Perform multi sample analysis

**Result and Discussion**

**Data Collection and Respondent Characteristics**

Before used as a research instrument, questionnaire pre-tested performed using validation and reliability tests. Validity test shows that three of the shopping intention indicators are valid. The same result was found regarding attitude towards modern retail outlet, and shopping habit indicators. Reliability test also showed that all indicators used to measure the three of latent variables are reliable.

Having validity and reliability of questionnaire proved, questionnaire were distributed to respondents. First place visited in order to find out respondents was shopping mall center. Respondents were asked their time availability in order to conduct direct interview. But most of them prefer taking out questionnaire and fill it by themselves (self administered questionnaire). Questionnaires were also distributed in offices.

Even though there are differences in data collection scenario, i.e. interviewed and self administered questionnaire, biasness will not result significantly, as proved by prior research (Aday, 1996; Bradburn, 1983; Dillman, 1978).
Data was collected through consumer who stated in Jabodetabek regions (Jakarta, Bogor, Depok, Tangerang, and Bekasi). As many of 1850 first stage questionnaires were distributed during 2005 November until June 2006. Only 1010 of them returned, and only 991 proceeded to data coding due to incomplete answer. Second stage questionnaire returned only 691, as many as 235 of it excelled due to inappropriate data provided nor respondent identity, therefore only 330 questionnaires proceeded to data analysis.

Respondent characteristics are shown in Figure 2 - 4. As can be seen on Figure 2, range of respondents age mostly on 35-44 years (122 respondents), and high school education level (26 per cent).
Figure 2: Respondent Demography  (a) Age Interval, (b) Education Level

Based on Figure 3, most of respondent work in private company (36.3 per cent), followed by academicians (21.8 per cent). From the point of view of marital status, 71.9 per cent of respondent married.
Figure 3: Respondent Based on (a) Job, (b) Married Status

Due to shifting family tradition, shopping is not just female monopolistic activity, but is also performed by males. But still shopping trip frequencies of females is higher than males, that is females 86.4 per cent of respondents. This phenomena supports research resulted by Pan and Zinkhan (2006) on US consumers. It’s not surprising to meet males buying households stuff (convenience goods) these days, as retail store operates in shopping center with pleasant environment.

Figure 4: Respondent Based on Gender

Confirmatory Analysis of Latent Variables

As mentioned before, firstly we conducted confirmatory factor analysis to each of latent variables. The purpose of this step is to test the construct validity of indicators of each of the latent variables.

Shopping intention, which is the first latent variable, measured using three indicators, that is the intention to visit again the outlet on next shopping trip (inten1), the expenditure planned (inten2), and the frequencies of shopping trip planned (inten3). As shown on Figure 5, all manifest variables consider as construct that have perfect validity in measuring shopping intention (showing by big p-value and very small RMSEA). The biggest contribution among the three of manifest variables was given by intention to visit again the outlet on next shopping trip (inten1), i.e. 1.21. Following by expenditure planned (inten2), which contributes 0.97. The frequencies of shopping trip planned (inten3) showing the smallest contribution, i.e. 0.53.
Figure 5: Confirmatory Factor Analysis of Shopping Intention

Confirmatory factor analysis on attitude towards outlet showing that all manifest variables have high construct validity in measuring latent variable. As can be seen on Figure 6, the first manifest variable, i.e. attitude on outlet patronage (atti1) has the biggest effect on attitude towards outlet. Its path coefficient is 0.63. Following is attitude on shopping expenditure, which has contribution as much as 0.59. Attitude toward shopping frequency shows the smallest effect in measuring attitude toward outlet, i.e. 0.37. Based on that figure, the three of manifest variables can be concluded as perfect indicators of attitude toward modern retail outlet.

Figure 6: Confirmatory Factor Analysis of Attitude Toward Modern Retail Outlet

Shopping habit plays as latent variable. Same with the other two latent variables, it’s measured using three indicators, i.e. modern retail outlet visited during last five months (habit1), mean expenditure in one shopping visitation on last period (habit2), and mean shopping frequencies per one month on last period (habit3). Confirmatory factor analysis shows that all indicators have high construct validity in measuring shopping habit (Figure 7). Indicator mean expenditure in one shopping visitation on last period (1.19), followed by mean shopping frequencies per one month on last period (1.11), and modern retail outlet visited during last five months (0.71). P-value 1.0000 and RMSEA 0.0000 indicate that all indicators can be considered as perfect indicator to measure shopping habit.
Figure 7: Confirmatory Factor Analysis of Shopping Habit

The Difference of Behaviour Among Different Format Retail
Path diagram showing the relationship between latent variables, as can be seen in Figure 8. This path diagram was produced using multilevel modeling of Lisrel software package. Diagram indicates the direct effect of attitude toward modern retail outlet on shopping intention, as well as the effect of shopping habit on shopping intention. The result on the effect of attitude towards modern outlet on shopping intention is not surprising. Many researchers have shown the significant direct effect of attitude on intention on varied behaviour (Ajzen and Fishbein, 1980, 2004; Ajzen, 1991; Ajzen, Brown, and Carvajal, 2004; Nakanishi, 1976; Jawahar and Elango, 2001; Allen et al., 1992; Smith et al. 1994). According to Nakanishi (1976), attitude towards price influence retail patronage positively. The store which sells goods at a lower price will be preferred over the one which sells goods at a higher price. Also found that attitude towards store environment influence store patronage negatively.

Allen et al. (1992), and Smith et al. (1994) stated that attitude influence behaviour either with or without mediation. Interesting result showed by Allen et al. (1992), that the power of attitude to influence behaviour becomes greater as consumer has previous experiences, which is measured using frequency of action performed before. The finding is also supported by Smith et al. (1994) research on recycling behaviour.

The direct influence of shopping habit on shopping intention can be rooted from theory that density of positive experiences will lead consumer making decision without looking on additional information (Fazio and Zanna, 1981; Choong, 2002; Aarts et al. 1998; Bagozzi, 1981; Bentler and Speckart, 1979; Ouellette and Wood, 1998). Even Ajzen (2002), and also Daigle et al. (2002) verify that repeated action, in stable condition, performs without consideration. Past behaviour (habit) is good predictor of future behaviour as action performs repeatedly and in stable condition. Decision on convenience goods shopping perform repeatedly and can be concluded in stable condition. Choong (2002) further stated that this theory gives evidence to the power of attitude and intention in predicting future behaviour.
Controlling stimuli evidence in this regards is categorized as indication stimuli that is the need to fill out convenience goods due to out of stock (Aarts et al. 1998; Ouellette and Wood, 1998; Ronis et al. 1989).

Same as temporary stability of behaviour, the effect of residual past behaviour on future behaviour contributes to the habit or routinization of actions. Whenever behaviour become habit, it’s belief stem from direct control of indication stimuli, and more important, intention and other cognitive factors loose their predictive validity (Aarts et al. 1998; Ouellette and Wood, 1998).

Planned behaviour theory also introduced automation element. Belief, attitude, and intention are formulated clearly only when the behaviour is new. As behaviour performs repeatedly, belief consideration left, attitude and intention saved in memory, and recall automatically (Sebastian et al. 2003; Ajzen and Fishbein, 2004; Ajzen and Sexton, 1999).

As many researchers stated, intention is not only influenced by attitude and habit. Grace and Aron (2005) found that intention to again visit the same store is influenced by perceived money value, satisfaction, and consumption on department store (defined as mass seller, which give impression on product and service high quality perception), and discount store (defined as mass seller which stress on self service and low prices). Also found the effect of service monitoring as an antecedent of consumer evaluation toward retail outlet. As a whole, perceived money value plays the most significant role on discount store. On the other hand, consumption plays the most significant role on department store.

For a few cases, either on convenience goods shopping behaviour (repeated behaviour with high frequency), or on complex decisions, most of mental evidence, such as “trying”, “motivation”, etc, and physically action mediate the effect of intention on behaviour (Bagozzi, 2004).

Part of Lisrel output of consumer shopping behaviour among format using multilevel modeling is shown on Table 3 and 4 just for convenience. Since p-value is greater than 0.05, it can be stated that there is no different consumer shopping behaviour among format. Consumer shopping behaviour in this regards measured using individual determinant, i.e. shopping intention, attitude toward retail outlet, and shopping habit.

Table 3: Estimates for the Fixed Part
### Table 4: Random Part of the Model

| Level 2       | Tau-Hat | Std. Err. | z-Value | P > |z| |
|---------------|---------|-----------|---------|-----|---|
| Time1/Time1   | 0.02685 | 0.01578   | 1.70147 | 0.08885 |
| Time2/Time1   | 0.00838 | 0.01412   | 0.59341 | 0.55291 |
| Time2/Time2   | 0.02274 | 0.02193   | 1.03724 | 0.29962 |
| Time3/Time1   | 0.02498 | 0.01657   | 1.50786 | 0.13159 |
| Time3/Time2   | 0.02363 | 0.01966   | 1.20170 | 0.22948 |
| Time3/Time3   | 0.12716 | 0.03327   | 3.82167 | 0.00013 |

### Conclusion and Implication

Result above shows that individual determinant such as shopping intention, attitude towards retail outlet, and shopping habit plays important role on consumer shopping decision. Attitude towards retail outlet and shopping habit influence shopping intention. This imply, retailers should concentrate on strategies in building consumers’ positive attitude towards their retail, so that consumers visit their retail in order to make purchases regularly. However, it's found that it is no different of this individual determinant among retail format. This imply, consumer visit all format in making convenience goods purchase.

### References


BIRO (Business Intelligence Report) (2001), Prospects of Retail Business in Indonesia, PT Biro Data Indonesia, Tangerang.


