# THE EFFECT OF PRODUCT PORTFOLIO ON PURCHASE INTENTION IN E-COMMERCE WEB SITES

Dr. Mustafa Emre Civelek & Dr. Adnan Veysel Ertemel



#### OUTLINE

- PROBLEM IDETIFICATION
- CONCEPTUAL MODEL
- HYPOTHESES
- DIMENSIONS
- MEASURES AND SAMPLING
- RESEARCH METHODS
- CONFIRMATORY FACTOR ANALYSIS
- CONSTRUCT DESCRIPTIVES, CORRELATION AND RELIABILITY
- RESULTS OF SEM ANALYSIS
- HYPOTHESES TEST RESULTS
- CONCLUSION



#### PROBLEM IDETIFICATION

- This research attempted to demystify the underlying dynamics behind the purchase intention of customers in B2C e-Commerce web sites.
- Business-to-Consumer (B2C) e-commerce has crucial importance by enabling trade at individual level globally, by providing cheaper, faster and more convenient ways to conduct transactions.
- There are various factors involved in determining the success or failure of a B2C e-commerce web sites.
- Among those, this paper focuses on the effect of the product portfolio of the e-commerce web site.
- On the other hand, one of the most important factors in assessing performance of a B2C e-commerce web site is its ability to create favorable perceptions in target consumers' minds.

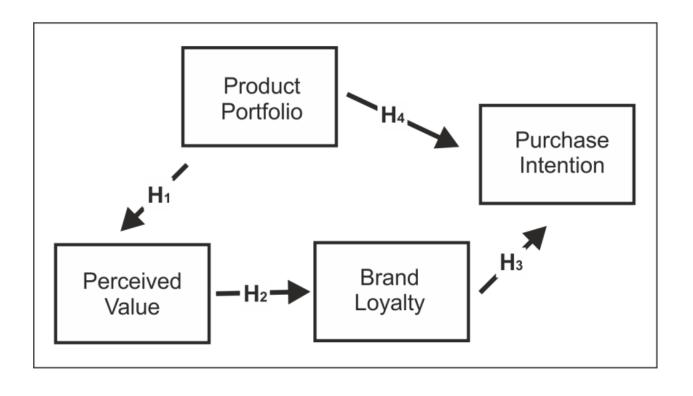


#### PROBLEM IDETIFICATION

- A B2C e-commerce web site's performance is measured by its sales revenue. Therefore, customer purchase decision plays a critical role within the process.
- This study analyzes the direct and indirect effects of product portfolio on customers' purchase intention through customer perceived value and loyalty to the web sites.



# CONCEPTUAL MODEL





# **HYPOTHESES**

| H <sub>1</sub> : | Product Portfolio has a positive effect on Perceived Value.    |
|------------------|--|
| H <sub>2</sub> : | Perceived Value has a positive effect on Brand Loyalty.        |
| Н <sub>3</sub> : | Brand Loyalty has a positive effect on Purchase Intention.     |
| H <sub>4</sub> : | Product Portfolio has a positive effect on Purchase Intention. |



#### **Product Portfolio**

• Product portfolio refers to the range and depth of products found in ecommerce web sites.



#### Perceived Value

- Perceived value can be defined as an overall assessment of the risks and rewards associated with a brand and its products and services.
  - Customers in online medium want to feel equitably treated; that's, the exchange occurred should be believed to be fair and deserved. (Oliver et al., 1988).



#### **Brand Loyalty**

 Brand loyalty is known as the degree to which consumers are committed to a brand.

This commitment can be

- in the form of inner attitudes (bias)
- repeat purchase behavior
- inclination to recommend the brand to others



#### **Purchase Intention**

- Purchase intention is used as an dependent variable in predicting actual behavior.
- Purchase intention refers to purchase decision of customer made for a product.



#### MEASURES AND SAMPLING

- The scale adopted from prior studies were used to measure the dimensions.
- Scale adopted Jiang et al. were used to measure product portfolio, customer loyalty and perceived value (Jiang, Jun, Yang, 2016).
- Scale adopted from Chen et al. was used to measure purchase intention (Chen, Teng, 2013).
- The data was collected through survey. More than 500 distributed, 464 valid questionnaires were gathered from prominent cities throughout Turkey. 240 of the respondents are male and 224 are female.



#### RESEARCH METHODS

- In this research quantitative data was used and five point Likert scale survey was conducted.
- Confirmatory factor analysis (CFA) was used to analysis of the convergent validity. In order to assess discriminant validity, average variance extracted values (AVE) were calculated.
- Cronbach alpha and composite reliability (CR) values were found to analyse the reliability of the scales.
- Structural equation model which is a multi-variable statistical method was used to test the hypotheses put forward in the conceptual model.
- CB-SEM analysis method was used.
- AMOS statistics programs were used for analyses.



# CONFIRMATORY FACTOR ANALYSIS

| Variables           | Items   | Standardized<br>Factor Loads | Unstandardized<br>Factor Loads |
|---------------------|---------|------------------------------|--------------------------------|
| Due do et Doutfelle | Ppo0330 | 0.752                        | 1                              |
| Product Portfolio   | Ppo0229 | 0.674                        | 0.999                          |
|                     | Pva0434 | 0.695                        | 1                              |
|                     | Pva0535 | 0.702                        | 0.998                          |
| Perceived Value     | Pva0333 | 0.508                        | 0.839                          |
|                     | Pva0131 | 0.553                        | 0.819                          |
|                     | Pva0232 | 0.693                        | 1.052                          |
|                     | Bly0641 | 0.580                        | 1                              |
|                     | Bly0136 | 0.831                        | 1.544                          |
| Brand Loyalty       | Bly0439 | 0.630                        | 0.225                          |
|                     | Bly0237 | 0.864                        | 0.512                          |
|                     | Bly0338 | 0.717                        | 1.416                          |
|                     | Pin0142 | 0.727                        | 1                              |
| Purchase Intention  | Pin0344 | 0.840                        | 1.115                          |
|                     | Pin0243 | 0.850                        | 1.119                          |

p<0.05 for all items



#### CONFIRMATORY FACTOR ANALYSIS

- After the data purification process 15 items were included in the confirmatory factor analysis.
- Confirmatory factor analysis was performed on the scales by using AMOS for assessing convergent validity.
- According to the confirmatory factor analysis results, the standardized factor loads of each item are larger than 0.5.
- These results confirmed the convergent validity of the scales.



# CONSTRUCT DESCRIPTIVES, CORRELATION AND RELIABILITY

| Variables             | 1       | 2       | 3       | 4       |
|-----------------------|---------|---------|---------|---------|
| 1.Product Portfolio   | (0.714) |         |         |         |
| 2.Perceived Value     | 0.493*  | (0.635) |         |         |
| 3.Brand Loyalty       | 0.427*  | 0.521*  | (0.733) |         |
| 4.Purchase Intention  | 0.341*  | 0.414*  | 0.590*  | (0.807) |
| Composite reliability | 0.675   | 0.769   | 0.850   | 0.848   |
| Average variance ext. | 0.510   | 0.404   | 0.537   | 0.652   |
| Cronbach α            | 0.670   | 0.785   | 0.846   | 0.844   |
| Mean                  | 3.98    | 3.74    | 3.82    | 3.98    |
| Standard Deviation    | 0.77    | 0.65    | 0.74    | 0.75    |
|                       |         |         |         |         |

<sup>\*</sup>p < 0.01

Note: Diagonals show the square root of AVEs.

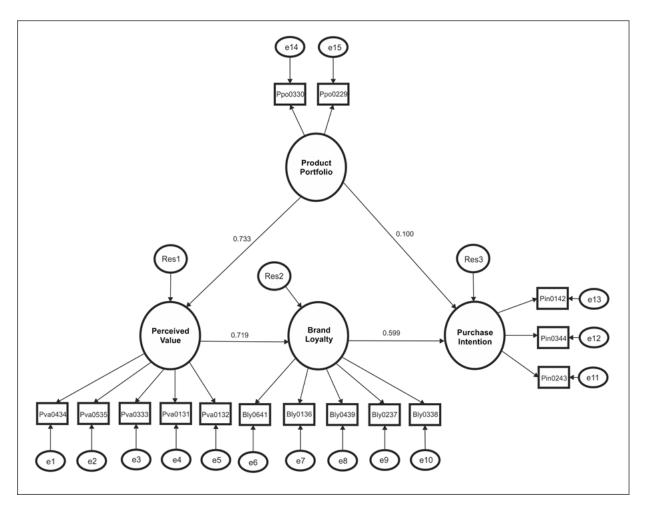


# CONSTRUCT DESCRIPTIVES, CORRELATION AND RELIABILITY

- To assess discriminant validity, average variance extracted values were calculated. Results are close to or beyond the threshold level (i.e. 0.5)
- Reliability of each construct individually calculated. Composite reliability and Cronbach  $\alpha$  values are close to or beyond the threshold level (i.e. 0.7).



## **RESULTS OF SEM ANALYSIS**





# HYPOTHESES TEST RESULTS

| Relationships                          | Standardized<br>Coefficients | Unstandardized<br>Coefficients |
|--|------------------------------|--------------------------------|
| Product Portfolio → Perceived Value    | 0.733*                       | 0.880*                         |
| Perceived Value → Brand Loyalty        | 0.719*                       | 0.619*                         |
| Brand Loyalty → Purchase Intention     | 0.599*                       | 0.754*                         |
| Product Portfolio → Purchase Intention | 0.100                        | 0.130                          |

<sup>\*</sup>p < 0.05



#### CONCLUSION

- The most prominent finding of this study is that, contrary to the previous literature, product portfolio does not directly effect purchase intention in B2C e-commerce context. Product portfolio does, however, affect purchase intention indirectly through perceived value and brand loyalty.
- Perceived value and brand loyalty pave the way to customers' purchase intention consequatively.
- These findings may help the practitioners take more educated steps in planning and execution of their e-commerce web site strategies and improving their brands.
- Consequently, rich product portfolio is not enough to create purchase intention on its own.



