

**THE ASSOCIATION BETWEEN HEDONIC SCORE AND  
PREFERENCE CHOICE IN FORMULATING CONSUMER BASED  
SENSORY CHARACTERISTICS OF *GEPLAK WALUH***

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SENSORI GEPLAK WALUH MENURUT KONSUMEN**

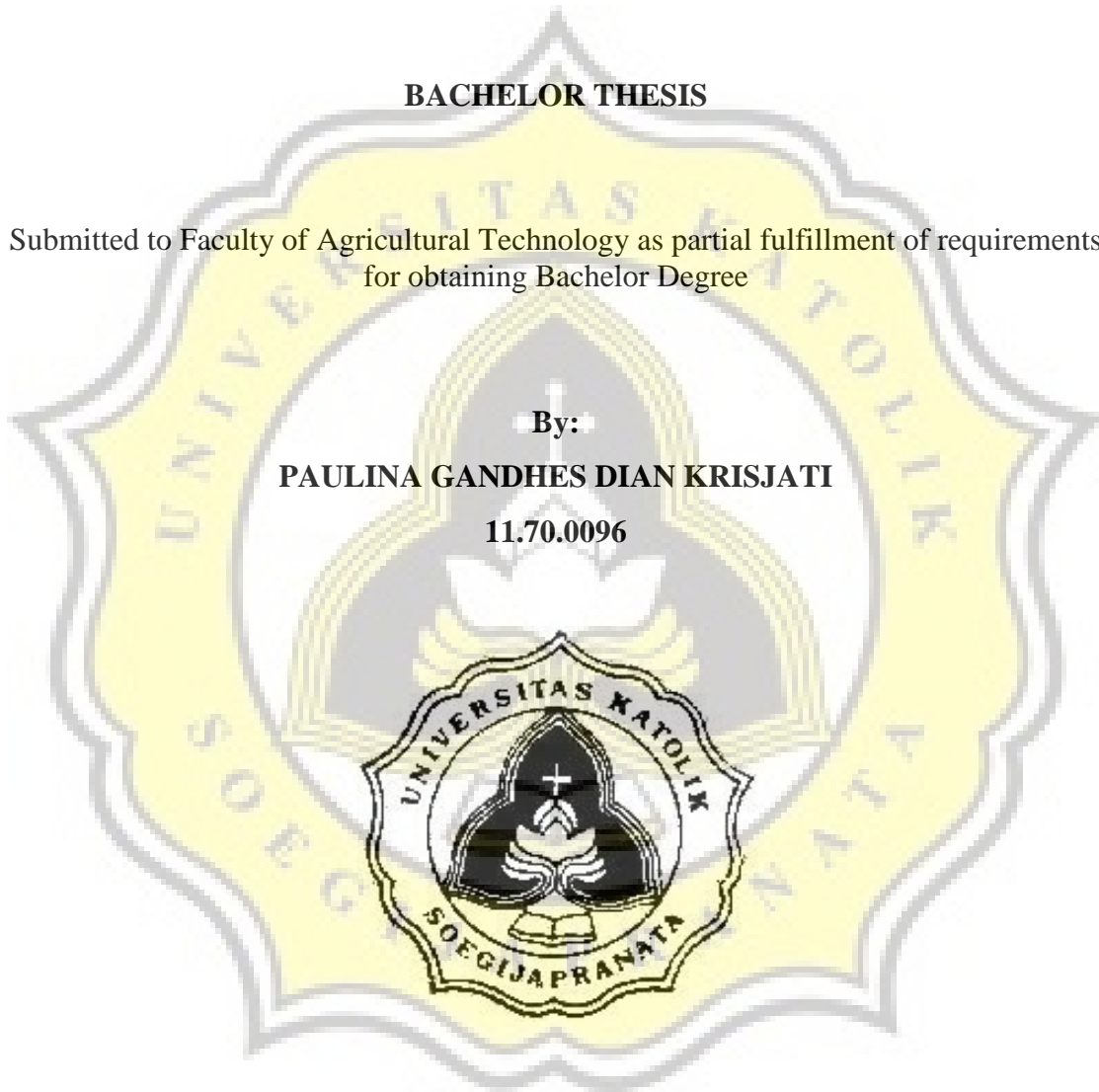
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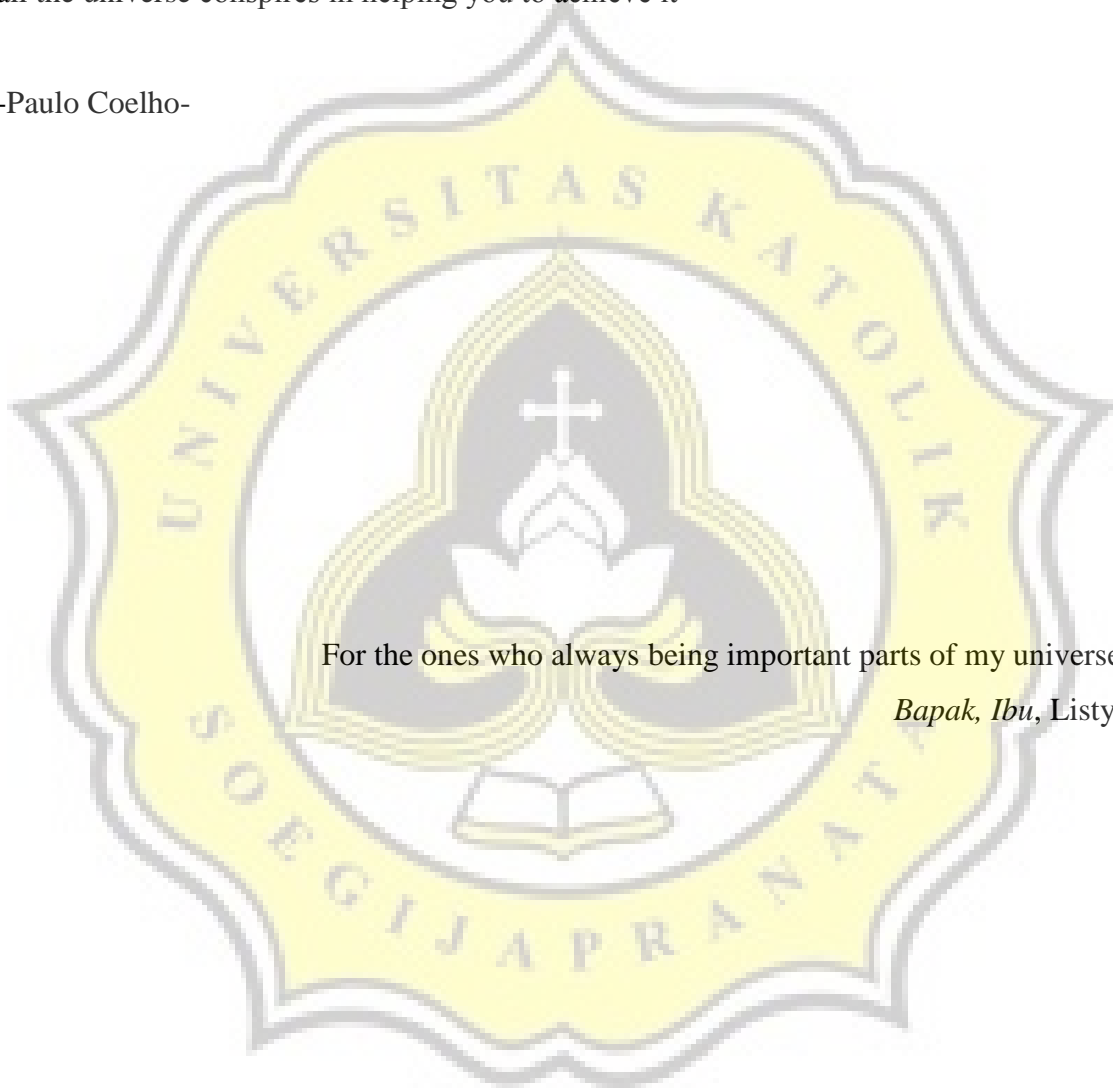


**DEPARTMENT OF FOOD TECHNOLOGY  
FACULTY OF AGRICULTURAL TECHNOLOGY  
SOEGIJAPRANATA CATHOLIC UNIVERSITY  
SEMARANG**

**2015**

“When you want something,  
all the universe conspires in helping you to achieve it”

-Paulo Coelho-



For the ones who always being important parts of my universe,  
*Bapak, Ibu, Listya*

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**This thesis had been approved and defended in front of examination committee  
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## PERNYATAAN KEASLIAN SKRIPSI

Saya yang bertandatangan di bawah ini:

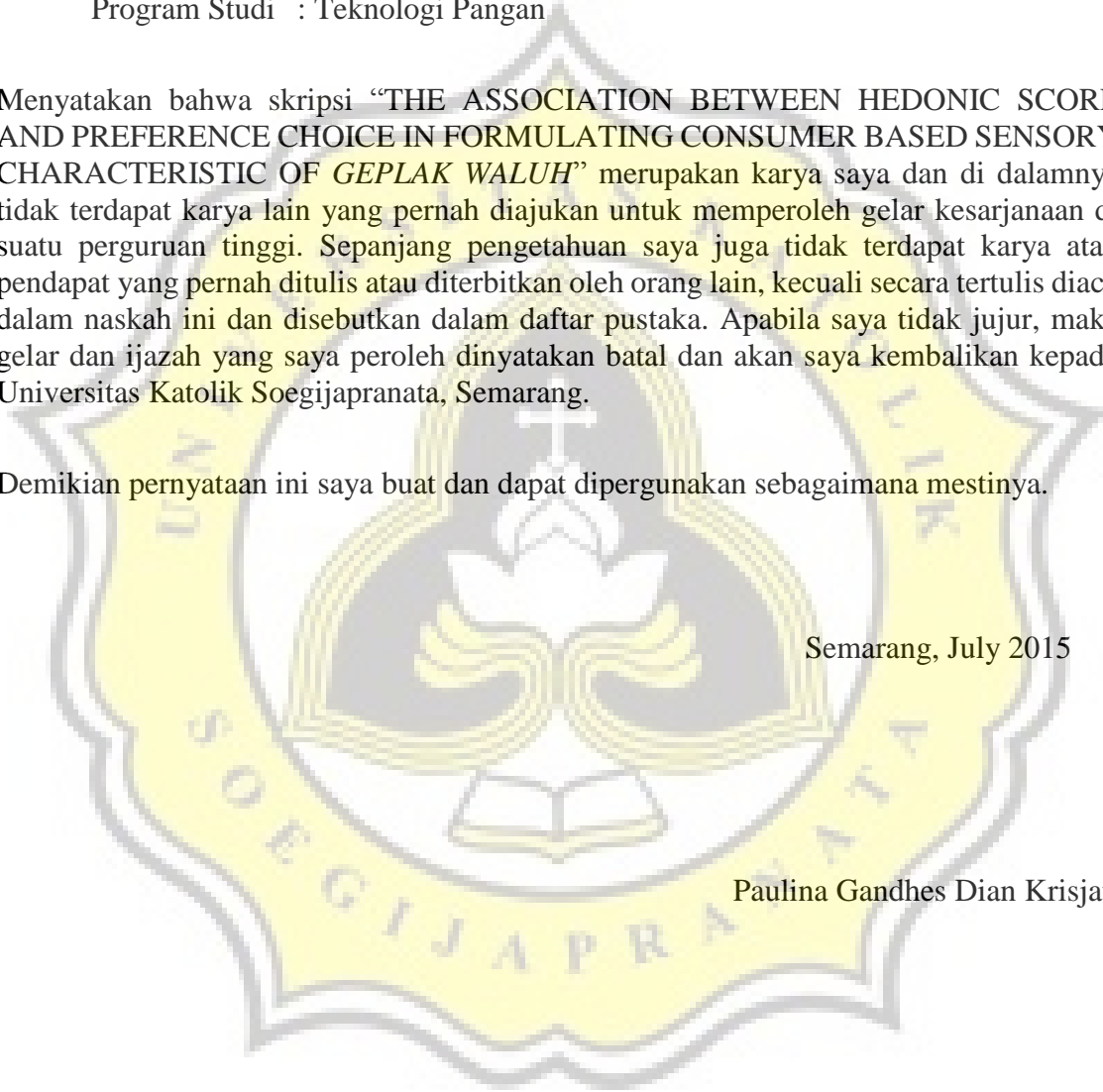
Nama : Paulina Gandhes Dian Krisjati  
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Program Studi : Teknologi Pangan

Menyatakan bahwa skripsi “THE ASSOCIATION BETWEEN HEDONIC SCORE AND PREFERENCE CHOICE IN FORMULATING CONSUMER BASED SENSORY CHARACTERISTIC OF *GEPLAK WALUH*” merupakan karya saya dan di dalamnya tidak terdapat karya lain yang pernah diajukan untuk memperoleh gelar kesarjanaan di suatu perguruan tinggi. Sepanjang pengetahuan saya juga tidak terdapat karya atau pendapat yang pernah ditulis atau diterbitkan oleh orang lain, kecuali secara tertulis diacu dalam naskah ini dan disebutkan dalam daftar pustaka. Apabila saya tidak jujur, maka gelar dan ijazah yang saya peroleh dinyatakan batal dan akan saya kembalikan kepada Universitas Katolik Soegijapranata, Semarang.

Demikian pernyataan ini saya buat dan dapat dipergunakan sebagaimana mestinya.

Semarang, July 2015

Paulina Gandhes Dian Krisjati



## SUMMARY

Getasan is an area producing a lot of agricultural products; one of them is yellow pumpkin (*waluh*). For almost a decade, many yellow pumpkin based innovative products have been produced, including “Geplak Waluh”. *Geplak* is a traditional snack made from coconut, sugar, and a little amount of salt. *Geplak waluh* has been distributed in local areas, in Semarang Regency, and Semarang City. In order to maintain and compete with other products, conducting a mass production as a development program for *geplak waluh* is needed. In conducting mass production, many aspects should be considered; one of them is consumer requirements. Consumers become an important aspect in product development. Knowing consumer needs will ensure that the product can be well accepted by the market, and reduce the risk of failure of new products. This study aims to find out the sensory attributes of *geplak waluh*, including the main attribute, and also to describe the best brand’s characteristics. The information on the consumer needs can be obtained by using the beginning step in the method of QFD (Quality Function Deployment). First, terms of Geplak Waluh’s sensory attributes should be determined. In depth interview and focus group discussion were employed to obtain the data. There were two brands of Geplak Waluh (A and B) and a brand of Geplak were used. There were 5 sensory attributes obtained in this study, namely sweetness, flavor and aroma of pumpkin, color, and hardness. The next step is a consumer test using the two brands of *geplak waluh* to 400 consumers in Semarang City and Semarang Regency. Two methods were used, i.e. hedonic rating test and preference choice. The result of hedonic rating test shows that consumers’ liking scores for Geplak Waluh “B” are higher significantly in almost all attributes tested. The attributes are sweetness, flavor and aroma of pumpkin, and hardness. Consumers only slightly liked the color of Geplak Waluh “A”. Overall, from the preference choice, consumers preferred Geplak Waluh “B” than another brand, significantly. The association between the two methods were then assessed. The result shows that the association of both methods only occurred in sweetness attribute. It means that the difference of liking score between two products in sweetness attribute will influence the preference choice. It would not happen to other attributes. Mostly, consumers gave low differences liking scores for pumpkin flavor, pumpkin aroma, color, and hardness attributes. These show that no matter how big the differences of product intensity will not influence consumers’ liking score of these attributes. Consumers liked sweet Geplak waluh, with sugar content at around 80 °brix, with less pumpkin flavor and aroma, has natural color of the waluh ( $L^*: 45.99 \pm 1.46$ ,  $a^*: 4.78 \pm 0.51$ ,  $b^*: 13.16 \pm 1.04$ ), and relatively hard ( $2514.77 \pm 211.75$  gf).

## RINGKASAN

Getasan merupakan daerah yang menghasilkan banyak hasil pertanian, salah satunya adalah waluh (labu kuning). Kurang lebih 10 tahun terakhir ini, labu kuning banyak dimanfaatkan menjadi bermacam-macam produk olahan tradisional. Salah satu produk inovasi berbasis waluh yaitu geplak waluh. Geplak merupakan makanan tradisional yang terbuat dari kelapa, gula, dan sedikit garam. Geplak waluh baru didistribusikan di daerah sekitar Getasan, yakni di Kabupaten dan Kota Semarang. Untuk mempertahankan produk hingga berkompetisi di dunia industri, produksi yang lebih besar serta distribusi yang lebih luas perlu dilakukan. Dalam meningkatkan jumlah produksi, banyak hal yang perlu diperhatikan, salah satunya adalah mengakomodasi keinginan konsumen. Konsumen merupakan aspek yang penting dalam pengembangan produk. Dengan mengetahui keinginan konsumen, risiko kegagalan produk di pasar akan berkurang. Ketika produk sudah sesuai dengan keinginan konsumen, maka konsumen akan dapat menerima produk dengan baik. Tujuan dari studi ini adalah menentukan atribut sensori, termasuk atribut utama dari geplak waluh, serta mendeskripsikan atribut sensori geplak waluh yang paling disukai konsumen. Keinginan konsumen dapat diketahui dengan menggunakan langkah awal dari metode QFD (Quality Function Deployment). Pertama, atribut-atribut sensori dari Geplak Waluh ditentukan. In depth interview dan focus group discussion digunakan untuk mendapatkan informasi ini. Terdapat dua sampel Geplak Waluh dan satu sampel Geplak digunakan. Didapatkan lima atribut sensori dari geplak waluh, yaitu kemanisan, rasa waluh, aroma waluh, warna, dan kekerasan. Langkah selanjutnya yaitu uji konsumen untuk dua sampel geplak waluh kepada 400 konsumen di Kabupaten dan Kota Semarang. Uji konsumen dilakukan dengan menggunakan metode hedonic rating test dan preference choice. Dari uji hedonik, didapat bahwa konsumen lebih menyukai Geplak Waluh "B" untuk atribut kemanisan, rasa waluh, aroma waluh, serta kekerasan secara signifikan. Sementara konsumen hanya sedikit lebih menyukai warna Geplak Waluh "A". Secara keseluruhan, uji dengan metode preference choice menghasilkan data bahwa konsumen lebih menyukai Geplak Waluh "B" secara signifikan. Asosiasi antara kedua metode uji konsumen kemudian dipelajari. Dari hasil penelitian, didapat bahwa hubungan antara kedua metode hanya terapat di atribut kemanisan. Perbedaan nilai kesukaan masing-masing sampel pada uji hedonik dapat mempengaruhi pemilihan konsumen terhadap produk secara keseluruhan. Sementara untuk atribut yang lain, perbedaan nilai kesukaan tiap sampel pada uji hedonik tidak akan mempengaruhi preferensi konsumen terhadap sampel tersebut. Konsumen juga diminta untuk mengevaluasi intensitas atribut sensori tiap sampel untuk menentukan deskripsi karakter terbaik bagi geplak waluh. Dari hasil evaluasi sampel, didapat bahwa hampir seluruh atribut (kecuali kekerasan) dari kedua sampel berbeda secara signifikan. Padahal, sebagian besar konsumen, terutama pada atribut rasa waluh, aroma waluh, warna, serta kekerasan, memberi nilai kesukaan yang tidak jauh berbeda untuk kedua sampel. Hal ini menunjukkan bahwa pada sebagian besar atribut, yaitu rasa waluh, aroma waluh, warna, dan kekerasan, perbedaan intensitas atribut sensori tidak mempengaruhi kesukaan konsumen pada atribut sensori sampel. Geplak waluh yang lebih disukai konsumen adalah geplak waluh yang manis, dengan kandungan gula sekitar 80 °brix, dengan rasa serta aroma waluh yang tidak kuat, memiliki warna natural geplak waluh ( $L^*: 45.99 \pm 1.46$ ,  $a^*: 4.78 \pm 0.51$ ,  $b^*: 13.16 \pm 1.04$ ), dan memiliki tekstur yang keras ( $2514.77 \pm 211.75$  gf).



## FOREWORD

Praise to the Almighty One, Jesus Christ merely, since only of His gracious mercy and tremendous blessing, author could accomplish this thesis entitled: “THE ASSOCIATION BETWEEN HEDONIC SCORE AND PREFERENCE CHOICE IN FORMULATING CONSUMER BASED SENSORY CHARACTERISTIC OF *GEPLAK WALUH*”. This thesis is presented to fulfill one of the requirements for obtaining Bachelor Degree in Food Technology Department, Faculty of Agricultural Technology, Soegijapranata Catholic University.

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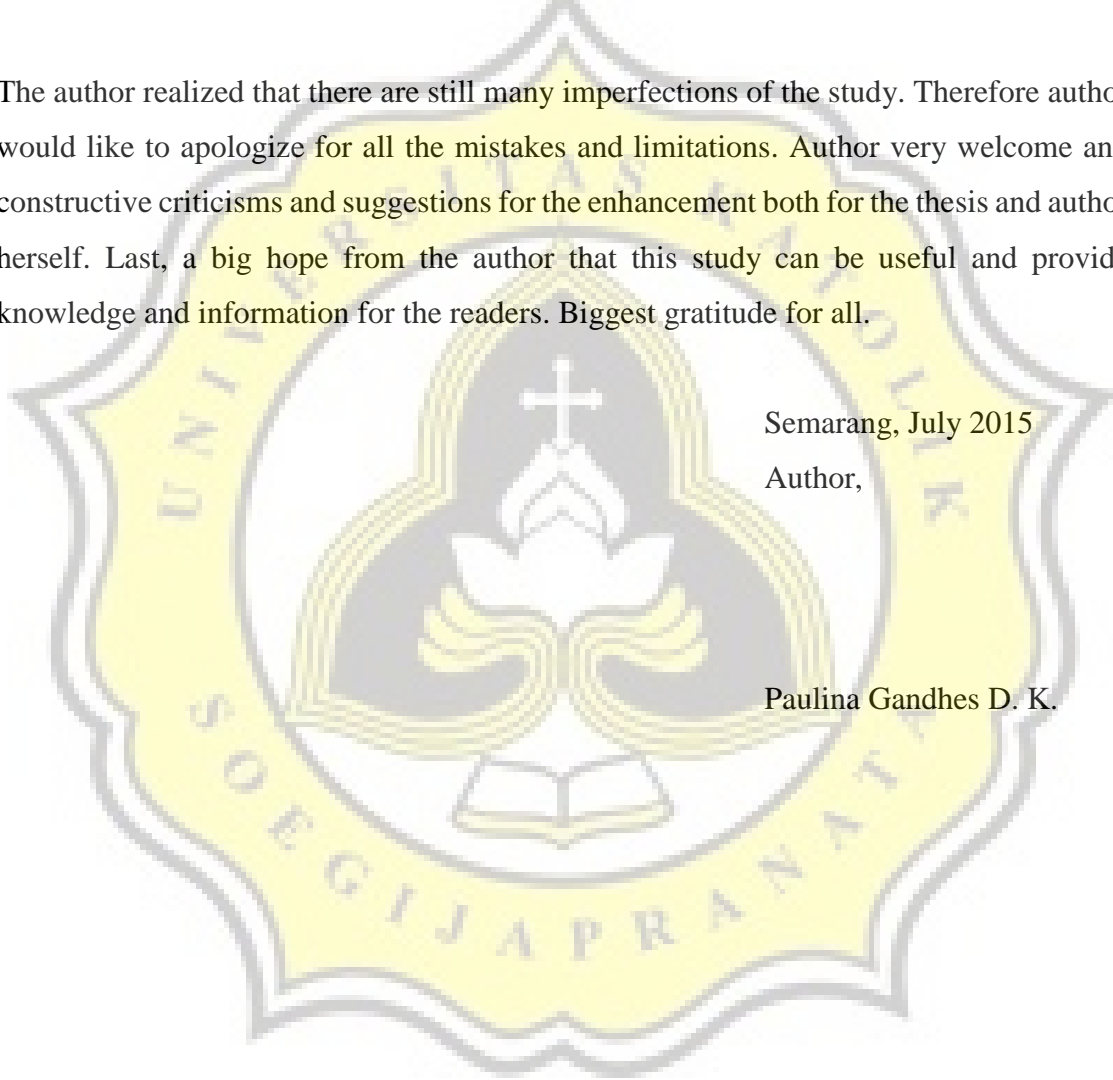
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The author realized that there are still many imperfections of the study. Therefore author would like to apologize for all the mistakes and limitations. Author very welcome any constructive criticisms and suggestions for the enhancement both for the thesis and author herself. Last, a big hope from the author that this study can be useful and provide knowledge and information for the readers. Biggest gratitude for all.

Semarang, July 2015

Author,

Paulina Gandhes D. K.

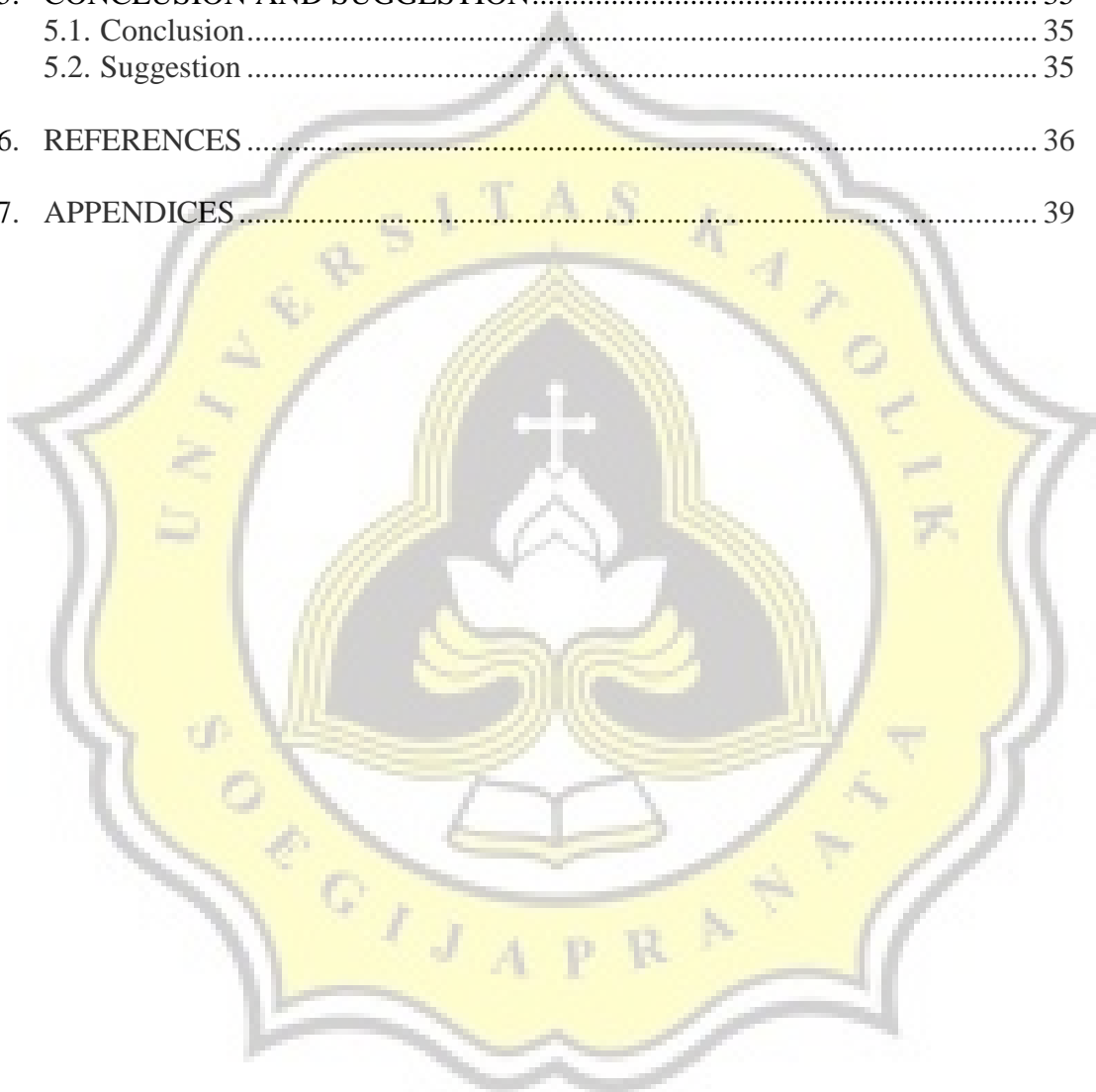




# CONTENT

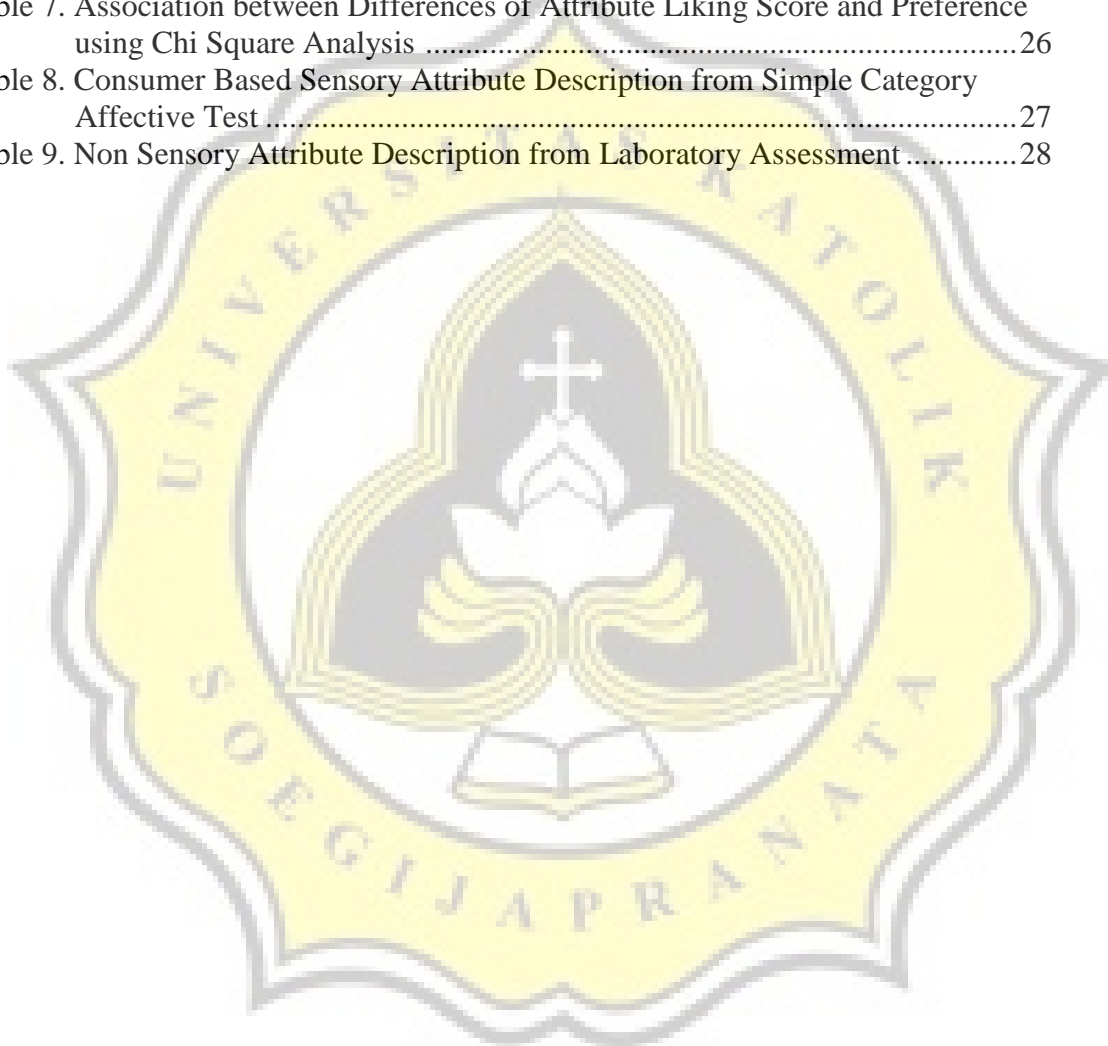
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