Understanding Factors Influencing Continuance Intention Of Users Toward Community-Based Traffic And Navigation Application In Indonesia

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Abstract

Mobility Problem Is One Of The Concerning Matter For A Populated Country Like Indonesia. One Of The Simple Examples Of Mobility Problem Is Traffic Congestion. The Internet Penetration In Indonesia Is Growing Rapidly Day By Day And It Directly Affects The Growth Of Application Downloads. To Solve The Traffic Congestion, The Rate Of Downloading Traffic And Navigation Applications Increases. One Of The Most Popular Navigation Applications In Indonesia Is Waze. Waze Is The Biggest Community-Based Traffic And Navigation Application In The World. The Aim Of This Research Was To Analyze Factors Influencing The Continuance Intention Of Customers Towards Waze Application In Indonesia. A Research Model Used In This Study Was A Modified Unified Theory Of Acceptance And Use Of Technology 2 Model From Venkatesh Et. Al. With Content As A New Added Variable. The Data Were Gathered From 491 Respondents In Indonesia Chosen By Purposive Sampling Technique. The Results Revealed From The Highest To The Lowest Influence Consecutively Were Habit, Hedonic Motivation, Performance Expectancy, Price Value, And Social Influence. In Terms Of Moderating Factors, Age Only Moderated The Influence Of Performance Expectancy And Hedonic Motivation Toward Continuance Intention. This Modified Utaut2 Model Had A Strong Explanatory Power, Which Was 70.1%.

Keywords: Waze, Continuance Intention, Adoption, Modified Utaut 2, Indonesia.

Introduction

Indonesia Has Over 256 Million People Living All Across The Country And Is In The Fourth Position As The Biggest Country After China, India And United States. According To Spectator Index, Indonesia Is Forecasted To Reach Its Peak In 2062 With 324,76 Million People (Databoks, 2018). Indonesia Has Successfully Become An Overpopulated Country With The Rate Of 3 Million Population Growth Per Year (Factsofindonesia, 2018). Being An Overpopulated Country Automatically Generates A Very Bad Mobility Problem And One Of Them Is Traffic Congestion. In Fact, According To Inrix Research In 2017, Six Cities In Indonesia Was On The List Of The 100 Most Congested Cities In The World And Indonesia Was Placed 2nd Of Top 3 Cities With The Most Congested Traffic In The World (Cookson, 2018).

The Survey Result Done By Indonesian Internet Service Provider Association (Asosiasi Penyelenggara Jasa Internet Indonesia—Apjii, 2017) Revealed The Internet Users Penetration In Indonesia Was 143,26 Million People From The Total Population Existed, Which Was Equal To Around 55% And 45% Out Of Them Were Smartphone/Personal Tablet Users (Asosiasi Penyelenggara Jasa Internet Indonesia, 2017). The Emergence Of Internet Users Also Increases The Number Of Application Downloads And To Solve The Traffic Congestion Problem, Internet Users Also Quest The Problem Solver Through Navigating Applications. One Of The Most Popular Navigating Applications In Indonesia Is Waze. Waze Was In The 2nd Position As The Most Downloaded Navigation Application In Indonesia, Which Was 5,6% Downloads (Arifin, 2016).

Waze Is The Biggest Community-Based Traffic And Navigating Application In The World. It Contributes To Inform The Users About The Latest Traffic Conditions And Accidents, Which Take Place On The Road. Different From Other Navigating Applications, Waze Is A Driving Focused Navigation That Is Invented For The Easier Mobility For Driver Or Passenger.

Globally, Waze Has Over 100 Million Active Users From The Total Of 185 Countries (Liputan6.Com, 2018). In Indonesian, Waze Users Had Become The Top 10 Biggest Waze Users In The World In 2014 (Dailysocial, 2014). In 2017, Jakarta Held The Title As The 2nd Biggest Waze Users In Asean [8]. According To Country Manager Waze Indonesia, The Growth Of Waze In Indonesia Is Quite Significant From Year To Year, In 2013 Waze Hit Over 750,000 Active Users, And In 2015 The Number Had Doubled Until It Reached Over 1.5 Million Active Users And In 2018 Waze Users In Indonesia Reached Over 4 Million Active Users Who Use The Application At Least Twice A Day (Liputan6.Com, 2018).

Waze Had Done Several Projects To Maximize Its Function In Indonesia, Such As Partnering With Principal Governance Of Dki Jakarta Since 2014 To Build The Smart City And Intelligent Traffic System (Its) (Rimadi, 2017) That Can Inform The Nearest Gas Station Of Pertamina (Wijaya, 2018) And Some Broadcasters Such As Tv Broadcaster (Swa.Co.Id, 2018). Waze Has 50 Communities That Are Actively Volunteering In Giving Information And Waze In The Near Fufure Is Planning To Focus In Updating Information Related To The Business Spot In The Field Of Quick Service Restaurants (Qsr), Automotive And Gas Station. Waze Is Also Planning To Have Partnership With Other Industries Such As Banking Or Fast Moving Consumer Goods (Fmcg) (Swa.Co.Id, 2018).

The Successful Growth Of Waze In Indonesia Could Give A Wider Opportunity For Waze To Maintain And Raise Its Position By Upgrading The Application. Therefore, The Aim Of This Study Was To Find Out Factors That Can Influence The Continuance Intention Of Customers To Use Waze In Indonesia. The Research Questions That Should Be Answer Are:
1. How Much Are The Consumer's Assessment On The Independent Variables Of The Modified Utaut2 Model (Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions, Hedonic Motivation, Price Value, Habit And Content) Of Waze Application In Indonesia?
2.`How Strong Is The Continuance Intention Of Consumers Towards Using Waze Application In Indonesia?
3. Based On Modified Utaut2 Model, What Are The Factors Influencing Consumers' Continuance Intention Toward Using Waze Application In Indonesia?
4. Do Age And Gender Have Impacts On The Factors Of Modified Utaut2 Model Which Influence Waze Application Users On Continuous Intention In Using Waze Application In Indonesia?
5. Can This Research Model Of Modified Utaut2 Be Used For Predicting The Continuance Intention Of Waze Application In Indonesia?
As The Result From This Study, The Company Could Do An Improvement For The Service Quality And Other Similar Company Could Take Some Ideas To Be Applied To Their Products. Moreover, There Were No Previous Studies Which Investigated This Phenomenon In Indonesia, Hence This Study Can Fill In The Gap Of The Existing Study Especially In The Area Of Utaut2 Model Which Is Modified.

Literature Review And Conceptual Model

The Most Appropriate Technology Adoption Model That Was Suitable As A Base Of Theoretical Framework To This Study Was Utaut2 Model. Utaut Itself Stand For Unified Theory And Acceptance And Use Of Technology. The Model Was Invented By Venkatesh Et Al., In 2012 As The Extension From The Eight Prominent Models Related To Technology Adoptions; Theory Of Reasoned Action (Tra), Theory Of Planned Behaviour (Tpb), Technology Of Acceptance Model (Tam), Technology Of Acceptance Model 2 (Tam2), Combined Tam And Tpb (C-Tam-Tpb), Motivational Model (Mm), Innovation Diffusion Theory (Idt) And Social Cognitive Theory (Sct) (Venkatesh, *Et Al.,* 2012). Compared To The Eight Previous Models, Which Could Only Predict 17%-53% Of The Variation, Utaut Has A Capability To Explain 56%-74% Of Variation On Behavioral Intention Towards The Use Of Technology.

The Utaut Model Is Intended To Explain The Acceptance Of Technology Adoption In The Context Of Organization Or Company But Because This Study Was In The Consumer Context So The Authors Used Utaut 2 Model To Give The More Fitted Variables To The Framework Model (Venkatesh, *Et Al.,* 2012). The Authors Also Modified The Framework Model Of Utaut 2 Based On The Need Of This Study.

The First Modification Was To Change Behavioral Intention Into Continuance Intention And Did Not Include Use Behaviour To The Model. Moreover, The Respondents Of This Study Were Those Who Already Use Waze Application For More Than 3 Months Because The Study Aim Was To Found Out What Factors Influenced The Active Users To Continuously Using Waze In Indonesia. The Usage Of Variable Continuance Intention Is In Accordance With The Research By Xu In 2014 (Xu, 2014).

Also, This Research Added Content As The New Variable To The Model. Variable Content Was Added Because Content Predicted To Be Affecting The Continuance Intention Of Waze Users In Adopting Waze Continuously Based On The Data From The Preliminary Data Gathering That Authors Already Conducted. The Research By Indrawati And Haryoto (2015) Also Proven Content Was One Of The Predictor Of Technology Adoption.

The Last Modification Was By Removing Experience As The Moderating Variable Because This Study Was Cross-Sectional So The Data Was Taken At The Same Point Of Time, Or Without Regard To Differences In Time, Hence Experience Was A Bit Irrelevant To Be Measured.
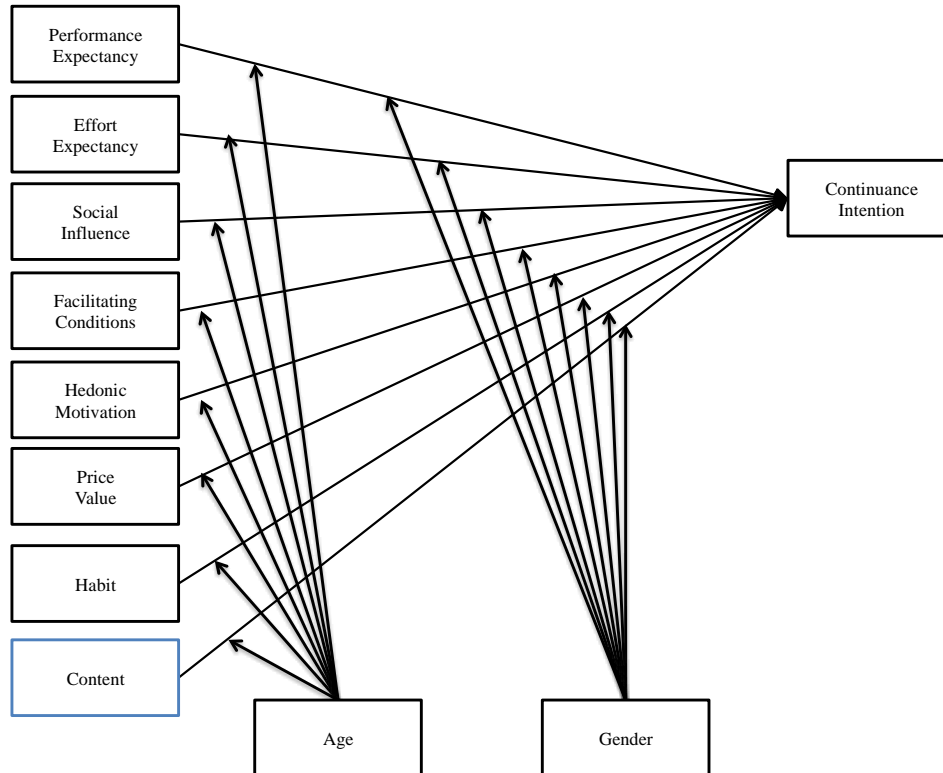

Figure 1: Modified Utaut 2 Model

(Source: Adapted And Modified By The Authors From Venkatesh Et Al., 2012)

The Definition Of All The 9 Variables Are Based And Adapted From Venkatesh Et. Al. (Venkatesh, *Et Al.,* 2003 And Venkatesh, *Et Al.,* 2012). Performance Expectancy Is The Degree To Which An Individual Believes That Using Waze Application Will Help Him Or Her To Attain Gains In Reaching Destination. Effort Expectancy Is The Degree Of Ease Associated With The Use Of Waze Application. Social Influence Is The Degree To Which An Individual Perceives That Important Others Believe He Or She Should Use Waze Application. Facilitating Conditions Are The Degree To Which An Individual Believes That An Organizational And Technical Infrastructure Exist To Support Use Of Waze. Hedonic Motivation Is The Fun Derived From Using Waze, And It Has Been Shown To Play An Important Role In Determining Technology Acceptance And Use. Price Value Is Consumers' Cognitive Tradeoff Between The Perceived Benefits Of Waze Application And The Monetary Cost For Using Them. Habit Defines As The Extent To Which People Tend To Use Waze Application Automatically Because Of Learning. Indrawati Et. Al, Explained Content Is The Materials Prepared By The Practitioner Or Community That Will Be Used By A Large Number Of People, Which Are Available And Can Be Accessed By Using Waze (Indrawati, *Et Al.*, 2010). The Authors Defined And Adapted Behavioral Intention With Continuance Intention. Continuance Intention Is The Degree To Which A Person Plans To Use Waze In The Future. The Questionnaire Items For Each Variable Are Presented In The Table 1.

Table 1: Questionnaire Items

Item Code	Items Of Performance Expectancy
Pe1	I Find Waze Application Useful In My Daily Driving.
Pe2	Using Waze Application Helps Me Reach My Destination Conveniently.
Pe3	Using Waze Application Save My Time While Driving.
Pe4	Using Waze Application Helps Me Visit The Places Of My Interest.
Pe5	Waze Application Helps Me To Drive Effectively.
Item Code	Items Of Effort Expectancy
Ee1	Learning How To Use Waze Application Is Easy For Me.
Ee2	Waze Application Is Easy To Understand.
Ee3	I Find Waze Application Easy To Use.
Ee4	It Is Easy For Me To Become Skillful When Using Waze Application.
Ee5	Overall, Using Waze Application Is Easy.
Item Code	Items Of Social Influence
Si1	People Who Are Important To Me Think That I Should Use Waze Application While Driving.
Si2	People Who Influence My Behavior Think That I Should Use Waze Application While Driving.
Si3	People Whose Opinions That I Value Prefer That I Use Waze Application.
Si4	People Who Are Close To Me Are Using Waze Application.
Si5	People Who Familiar With Me Recommend Me To Use Waze Application.
Item Code	Items Of Facilitating Conditions
Fc1	I Have The Knowledge Necessary To Use Waze Application.
Fc2	Waze Application Can Be Used In Gadget(S) That I Have.
Fc3	I Can Get Help From Others When I Have Difficulties In Using Waze Application.
Fc4	To Get The Information About The Use Of Waze Application Is Very Easy.
Item Code	Items Of Hedonic Motivation
Hm1	Using Waze Applications Is Fun.
Hm2	Using Waze Application Is Enjoyable.
Hm3	Using Waze Application Is Very Entertaining.
Hm4	I Feel Excited In Using Waze Applicationlications
Hm5	I Feel Pleased Driving With Waze Application.
Item Code	Items Of Price Value
Pv1	The Cost Of Using Waze Application Is Reasonable.
Pv2	Using Waze Application Is Worth The Cost.
Pv3	At The Current Price, Waze Application Provides A Good Value.
Pv4	The Benefits Obtained From Using Waze Is Comparable To The Costs Incurred.
Item Code	Items Of Habit
H1	The Use Of Waze Application Has Become A Habit For Me.
H2	I Am Addicted To Use Waze Application When Driving.
H3	I Must Use Waze Application When Driving.
H4	The Use Of Waze Application Is A Part Of My Daily Driving.
H5	To Use Of Waze Application Does Not Require A Deep Consideration.
Item Code	Items Of Content
C1	Waze Applications Content: Safety Warning, Digital Information And Entertainment Meet My Needs.
C2	Content That Can Be Accessed Via Waze Application Meet My Needs.
C3	Content Of Waze Application Give Me A Cozier Feeling.
C4	Content That Can Be Accessed Via Waze Application Provide Precise Information That Fits My Needs.
C5	Content Accessed Through Waze Application Will Stay Up To Date.
Item Code	Items Of Continuance Intention
Ci1	I Intend To Continue Using Waze Application Rather Than Discontinue Its Use.
Ci2	I Will Keep Using Waze Application As Regularly As I Do Now.

Ci3	My Intention To Continue Using Waze Applications Than Use Any Alternatives Means.
Ci4	I Intend To Increase My Use Of Waze Application In The Future.
Ci5	I Will Strongly Recommend Others To Use Waze Application.

Hypothesis Testing

Based On The Modified Utaut 2 Model As Shown In Figure 1, The Hypotheses Of This Study Are Summarized In The Table 2.

Table 2: Research Hypotheses

No	Research Hypotheses
1	Performance Expectancy Has A Positive And Significant Influence Towards Continuance Intention
1a	The Influence Of Performance Expectancy Towards Continuance Intention Is Moderated By Age
1b	The Influence Of Performance Expectancy Towards Continuance Intention Is Moderated By Gender
2	Effort Expectancy Has A Positive And Significant Influence Towards Continuance Intention
2a	The Influence Of Effort Expectancy Towards Continuance Intention Is Moderated By Age
2b	The Influence Of Effort Expectancy Towards Continuance Intention Is Moderated By Gender
3	Social Influence Has A Positive And Significant Influence Towards Continuance Intention
3a	The Influence Of Social Influence Towards Continuance Intention Is Moderated By Age
3b	The Influence Of Social Influence Towards Continuance Intention Is Moderated By Gender
4	Facilitating Conditions Has A Positive And Significant Influence Towards Continuance Intention
4a	The Influence Of Facilitating Conditions Towards Continuance Intention Is Moderated By Age
4b	The Influence Of Facilitating Conditions Towards Continuance Intention Is Moderated By Gender
5	Hedonic Motivation Has A Positive And Significant Influence Towards Continuance Intention
5a	The Influence Of Hedonic Motivation Towards Continuance Intention Is Moderated By Age
5b	The Influence Of Hedonic Motivation Towards Continuance Intention Is Moderated By Gender
6	Price Value Has A Positive And Significant Influence Towards Continuance Intention
6a	The Influence Of Price Value Towards Continuance Intention Is Moderated By Age
6b	The Influence Of Price Value Towards Continuance Intention Is Moderated By Gender
7	Habit Has A Positive And Significant Influence Towards Continuance Intention
7a	The Influence Of Habit Towards Continuance Intention Is Moderated By Age
7b	The Influence Of Habit Towards Continuance Intention Is Moderated By Gender
8	Content Has A Positive And Significant Influence Towards Continuance Intention
8a	The Influence Of Content Towards Continuance Intention Is Moderated By Age
8b	The Influence Of Content Towards Continuance Intention Is Moderated By Gender

Data Collection, Analysis, And Result

The Data From Respondents Were Gathered Via Google Forms And The Link Of The Form Was Disseminated Using Social Media Such As Instagram, Twitter, And Messenger Applications. The Distribution Was Done By Asking Account Owners Who Have Massive Of Followers To Share And Post Questionnaires In The Desired Cities. It Took Approximately 1 Month To Meet The Targeted Number Of Respondents. The Data Received To The Authors Were 849 Respondents And 491 Of Them Were Qualified

As Valid. Respondents Can Be Said To Be Valid If They Have Successfully Passed All Of The 4 Screening Questions That Were Asked At The Beginning Before Filling Out The Whole Questionnaire. The Respondents Must Be In The Age Of 15-60 Years Old, Using Waze Application For At Least 3 Months And Live In The 6 Selected Cities Of This Study.

Out Of 491 Respondents, 326 Respondents Or 66.4% Of Them Were Categorized In The Young Group Category And The Rest Of The Respondents, Which Was 33.6% Of Them Included In The Adult Group Category Which In The Diffusion Of Innovation Technology Theory Included As Innovators And Early Adopter Category (Kotler & Keller, 2016). Male Respondents On This Research Were 252 Respondents Or 51.3% And Female Respondents On This Research Are 239 Respondents, Which Is 48.7% Out Of 100%, Which Means The Respondents Of This Research Was Slightly Dominated By Male. This Proportion Is In Line With The Finding Of Geospatialworld.Net That The Usage Of Waze Application Is Dominated By Male Because Males Has A Better Sense Of Direction In General, And Because Women Are Generally More Relaxed With The Issue Of Being Late (Geospatialworld.Net, 2016). In Terms Of Domicile, The Respondents Were Categorized Into Six Areas In Indonesia, Namely; Jakarta, Bandung, Malang, Yogyakarta, Padang And Pontianak And This Study Had Fulfilled The Targeted Number Of Respondents And Most Cities Even Surpassed The Desired Number Of Respondents. For Occupation, Students Dominated The Data With The Percentage Of 37.9%, Followed By Employees Which Is 29.1%, Professionals Is 9.4%, Entrepreneurs Is 8.6%, Housewives Is 5.5%, Civil Servant Is 4.9%, Others Is 2.8% And Not Working Had Become The Least Percentage Of Respondents Which Is 1.8% Out Of 100%. Students Dominated The Characteristics Because Students Have A High Interest In Technology And The Intensity Of Communication That Is More Frequent Than Respondents In Other Occupations. Lastly For Last Education Obtained, Senior High School Level Was Dominated The Data With The Highest Percentage, Which Was 38.9% Of Total Respondents.

To Answer The First Research Question, This Study Conducted A Descriptive Analysis To Find Out The Consumer's Assessment Toward The Independent Variables Of The Modified Utaut 2 Of Waze Application In Indonesia. The Result Revealed That All Of The Variables Are Above 68% So The Score Are Categorized As High. The Details From The Highest Percentage To The Lowest Respectively Are As Follows: Effort Expectancy, Performance Expectancy, Facilitating Conditions, Price Value, Hedonic Motivation, Content, Continuance Intention, Social Influence, And Habit.

Based On The Descriptive Analysis, The Customer Assessment Regarding The Effort Expectancy Was Categorized As High. It Means That The Easiness In Using Waze Application Was High. Most Of The Items In Effort Expectancy Were All In High Category And Item Ee5 Showed Very High Score, The Item Was About "Overall, Using Waze Application Is Easy." Meanwhile, The Least Score Came From Item Ee4 That Was About "It Is Easy For Me To Become Skillful When Using Waze Application"

The Customer Assessment Regarding The Performance Expectancy Factor Was Categorized As High. The Highest Score Came From Item Pe1 About "I Find Waze Application Useful In My Daily Driving." On The Other Side, Item Pe3 Held The Lowest Score, Which Was About "Using Waze Application Save My Time While Driving." Overall, The Assessment Of Customers Towards Performance Expectancy Was High, It Implied That The Degree To Which An Individual Believes That Using Waze Application Will Highly Help Waze Users To Attain Gains In Job Performances In This Case Is Reaching The Destination Effectively.

The Customer Assessments Regarding The Facilitating Conditions Were, Three Items Categorized As High And One Item Categorized As Very High. The Highest Score, Which Was In The Category Of Very High, Was On Item Fc2 Related With "Waze Application Can Be Used In Gadget(S) That I Have." And The Least Score Is On Item Fc3 That Is About "I Can Get Help From Others When I Have Difficulties In Using Waze Application." It Implied That Waze Application Service Is Still Needed To Be Improved In Terms Of Customer Service Although It Was In The High Category.

Regarding Price Value, The Assessment Of Waze Users Toward This Variable Was Categorized As High. It Implied That There Is A High Degree On Consumers' Cognitive Tradeoff Between The Perceived Benefits Of Waze Application And The Monetary Cost For Using Them. The Least Score Comes From Item Pv2, Which Was About "Using Waze Application Is Worth The Cost." Meanwhile, The Best Score Comes From Item Pv3 With 77.27% Which Was About "At The Current Price, Waze Application Provides A Good Value."

The Perception Of Consumers Towards Hedonic Motivation Factor Was Also High. It Meant That There Was A High Degree Of Fun Or Pleasure Derived From Using Waze Application. The Highest Score Came From Hm1 Which The Item Was About "Using Waze Applications Is Fun." And The Lowest Score Came From Hm3 And The Item Was About "Using Waze Application Is Very Entertaining."

Content Factor Had Shown That The Consumers' Assessment Was High, It Meant The Perception Of Waze Users Related To The Degree Of Materials Prepared By The Practitioner Or Community That Will Be Used By A Large Number Of People, Which Are Available And Can Be Accessed By Using Waze Was High. All The Five Items Score Were High. However, The Lowest Score Was C3, Which Was About "Content Of Waze Application Gives Me A Cozier Feeling."

The Customer Perception Regarding Social Influence Variable Categorized As High. All Of The Items For Variable Social Influence Were In The High Category. It Meant Family, Relatives And Important Parties Were Highly Influencing Waze Users To Adopt Waze Application. The Least Score Came From Si2, Which Was About "People Who Influence My Behavior Think That I Should Use Waze Application While Driving." However, The Highest Score Came From Si1, Which Was About "People Who Are Important To Me Think That I Should Use Waze Application While Driving."

The Customer Perception Regarding Variable Habit Was High. It Means That There Was A High Extent To Which Waze Users Tend To Use Waze Application Automatically Because Of Learning. There Were Three Items Categorized As Enough And Two Items Categorized As High. The Lowest Score Was Item H3 Which Stated "I Must Use Waze Application When Driving." However, Even Though There Were Three Items Resulted As Enough, The Overall Score Was Still In The High Category.

Descriptive Analysis Also Was Being Done To Know The Continuance Intention Of Customers Towards Using Waze. Overall Result Revealed That The Consumers Had A High Intention To Continue Using Waze Application. It Means That There Was A High Degree To Which A Person Has Formulated Plans To Continuously Use Waze Application. The Opportunity For Waze Users To Use Waze Application Was High. However, The Highest Score Was Ci1, Which Was About "I Intend To Continue Using Waze Application Rather Than Discontinue Its Use." And The Lowest Was Ci3, Which Was About "My Intention To Continue Using Waze Applications Than Use Any Alternatives Means."

Next After The Authors Knew The Consumer Assessment Toward Each Variable In Modified Utaut 2 Model, The Authors Processed The 491 Valid Data By Using Smart Pls Software 3.2.8 Version In Order To Answer The Third Research Question. The Assessment Of The Measurement Model (Outer Model Measurement) And Assessment Of Structural Model (Inner Model Measurement) Are The Two Testing Process Which Needed To Be Done By Using Smartpls Software.

First For Outer Model Measurement, The Questionnaire Items Must Meet The Reliability Criteria. Reliability Related To Internal Consistency Reliability And The Most Known Criteria That Are Commonly Used To Measure The Internal Consistency Is Cronbach's Alpha (Ca), And Another Alternative Is Composite Reliability (Cr). A Recommended Value For Good Ca And Cr Is $\geq$ 0.7 (Indrawati, 2017). Another Verification Was To Test The Convergent Validity Criterion By Calculating Average Variance Extracted (Ave) Indicators. The Ave Score That Has 0.50 Showing The Items Of A Variable Has Enough Convergent Validity (Indrawati, 2015). The Result Of The Cronbach's Alpha, The Composite Reliability, And Ave Of Each Variable On This Research Is Shown In Table 3. The Table 3 Shows That All The Constructs Fulfilled The Convergent Validity Requirement.

Table 3: Reliability Test

Variable	Cronbach's Alpha	Composite Reliability	Ave
Content	0.933	0.949	0.790
Continuance Intention	0.944	0.957	0.818
Effort Expectancy	0.943	0.956	0.814
Facilitating Conditions	0.837	0.901	0.753
Habit	0.926	0.944	0.772
Hedonic Motivation	0.925	0.943	0.769

Performance Expectancy	0.896	0.923	0.707
Price Value	0.933	0.952	0.832
Social Influence	0.942	0.955	0.811

Obtaining The Valid And Reliable Variables From The Test Results, The Second Test In The Pls Is Called The Assessment Of The Structural Model Or Also Called The Inner Model Measurement. This Test Was Done To Get The Value Of The Path Coefficients By Looking At The Path Value From Pls To See The Influence Of Independent To Dependent Variables. To Know If The Path Coefficient Is Significant Or Not, The Bootstrapping Procedure Is Required To Get The T-Value. The Significance Level Used For This Research Was 5% Means That If The T-Value Result Is Greater Than 1.65 It Indicates That The Influence Of Independent Variables To Dependent Variable Is Significant. The Result Of Boostrapping Procedure In This Study Is Shown In Table 4.

Table 4: Path Coefficient And T-Value

Path Diagram	Path Coefficient	T-Value	Conclusion
H → Ci	0.475	10.624	Accepted
Hm → Ci	0.171	3.178	Accepted
Si → Ci	0.107	2.634	Accepted
Pe → Ci	0.102	2.583	Accepted
Pv → Ci	0.066	1.943	Accepted
Fc → Ci	0.012	0.308	Rejected
C → Ci	0.044	0.980	Rejected
Ee → Ci	0.050	1.346	Rejected

Based On Table 4, There Are Five Variables That Positively And Significantly Influence Continuance Intention, Those Variables From The Highest To The Lowest Effects Consecutively Are Habit, Hedonic Motivation, Social Influence, Performance Expectancy, And Price Value. However, There Are Only Three Variables Which Have No Significant Influence Towards Continuance Intention Namely Facilitating Conditions, Content And Effort Expectancy.

H Had Become The Strongest Variable From Modified Utaut2 Model In Predicting Continuance Intention To Use Waze Application, So This Factor Is The Main Priority Factor. Consumer's Interest In Using Waze Application Is Largely Determined By How Often The Usage Of Waze Application Has Become A Habit For Them. The Research By Xu (2014) Stated Habit Was One Of The Most Fluential Variables Towards Continuance Intention In Adopting Online Games.

Hm Was The Second Highest Variables That Predicted The Continuance Intention Of Waze Application. That Is To Say, The More The Fun Or Please Derived From Using Waze Application, The More Consumers' Intention To Continuously Adopt Waze Applications. Research By Herrero, *Et Al.* (2017) Also Proved Hedonic Motivation Influenced The Intention For Social Networks Sites And Online-Web Railway Ticket Reservation Service Adoption.

Si Was The Third Variable That Predicted The Continuance Intention Of Waze Application. It Means The Influence From Family, Relatives And Important Parties Determine People Decision To Continuously Use Waze Application. Similar With The Research By Macedo (2017) Also Showed Social Influence Has No Positive And Influence In Predicting The Acceptance And Use Of Informantion And Communication Technolgy By Older Adults. Also, In Line With Technology Research Conducted By (Venkatesh, *Et Al.,* 2012).

This Research Concluded That Pe Had A Positive And Significant Influence Toward Continuance Intention. Pe Was The Fourth Variable That Predicted The Continuance Intention Of Waze Application. It Means Waze Application Users Believe That Using Waze Application Will Help Him Or Her To Attain Gains In Daily Driving Performances. This Result Shows Similar Result With Ling, *Et Al.* (2016) That Stated Performance Expectancy Is The Strongest Variable To Behavioral Intention In Adopting Interactive White Boards Among Teachers.

Pv Was The Least Predictor That Predicts The Continuance Intention Of Waze Application. It Means Consumers' Cognitive Tradeoff Between The Perceived Benefits Of Waze Application And The Monetary Cost Become One Of The Factors For Them To Use Waze Application. The Research By Yuan, *Et Al.* (2015) Also Resulted That Price Value Influence The Continuance Intention In Using Health Apps.

Fc Had No Significant Influence On Ci Was Because The Users Of Waze Application Already Had Resources Necessary To Use The System Because When People Use Waze Application, The Customers Already Have The Smartphone To Access It And Did Not Need Any Other Devices To Obtain Services From Waze Application And Also The Internet Is Needed. A Study By Indrawati And Haryoto (2015) Also Has The Same Result.

The Variable Which Had No Influence On Ci Other That Fc Was C, Meant The Contents Such As Safety Warning, Digital Information And Entertainment That Waze Application Given Already Satisfy The Consumers.

Ee Had No Positive Influence Towards Ci, It Showed That The Users Of Waze Application Have No Worries To Take A Risk In Adopting Waze Application. To Strengthen The Data Result, The Respondent Profile Came From 66.40% Of Young Ages, Which In The Adoption Theory, They Are Included On Innovators And Early Adopter Category That Are Enthusiastic About Technology And Like To Try Taking Risk Of New Ideas. Thus, The Level Of Easiness Was Not One Of The Considerations For Users To Adopt Waze Application. This Research Result Was In Line With The Research By Gupta & Dogra (2017).

For The Second Objective Of Inner Model Measurement, R^2 Was Needed To Indicate The Prediction Power Of The Model In This Study And The R^2 For Ci Construct Was 0.701, Means That Dependent Variable On This Study Which Was Ci 70.1% Influenced By Performance Expectancy, Social Influence, Hedonic Motivation, Price Value And Habit While The Rest 29.9% Were Influenced By The Other Factors That Was Not Studied In This Research. It Also Stated That This Model Considered Having A Good Prediction Power (Indrawati, 2017).

Based On The Calculation, The Gof Index In This Reseach Is 0.734. It Means That The Overall Model Has Been Validated And Categorized As Large Gof.

The Effect Size For This Research Is Represented In Table 3. The Criteria To Determine The Effect Size Is By Using Cohen (1992) Criteria Of Categorizing Mean Effect Sizes As Non-Significant, Small, Medium Or Large. As Depicted By The Table, All Of The Effect Sizes Are Small.

Table 5: The Effect Size By Dependent Variable

Link	F-Square	Size/Weight
C To Ci	0,003	Small
Ee To Ci	0,004	Small
Fc To Ci	0,000	Small
H To Ci	0,365	Small
Hm To Ci	0,034	Small
Pe To Ci	0,016	Small
Pv To Ci	0,008	Small
Si To Ci	0,023	Small

Note: Effect Sizes Classification Is Based On Cohen's 1992 S = Small (.2 <D <.5); M = Medium (.5 <D <.8); L = Large (D >.8);

Moderating Variables In This Study Were Measured By Using The Group Comparison Approach. For Age, The Groups Were Divided Into Two, Young Group Who Are In The Age Of 15-29 Years Old And Adult Group Who Are In The Age Of 30-60 Years Old. For Gender, The Groups Were Divided Into Male And Female. Chin Formula Was Used To Test The Hypotheses Related With Moderating Variables In This Research (Indrawati, 2017). The Path Coefficients Had To Reach At Least 1.96 To Be Considered Significant At The Confident Level Of 95% In Two-Tailed Test.

Table 6: T-Value Result Of Moderating Variables

Correlation Of Variables	T-Value For Moderating Variables	
	Age	Gender
H → Ci	0.639	0.946
Hm → Ci	2.342	0.827
Pe → Ci	1.933	1.142
Pv → Ci	0.849	0.199
Si → Ci	0.745	1.047

Refers To Table 5, For Moderating Variable Age, It Shows That Age Only Moderated The Effect Of Two Variables, Namely Hm And Pe To Continuance Intention Of Consumers In The Context Of Waze Application In Indonesia. It Was Because Between Young And Adult Group Category, There Was A Different Perception In Quality Of Service And The Motive For Consumers To Use Waze Application. Previous Research About Instan Messenger Adoption Also Showed The Influence Of Pe And Hm Were Moderated By Age (Indrawati & Marhaeni, 2014).

The Moderating Variable Gender Has Proven Not To Moderate The Influence Of All The Independent To Dependent Variables Of The Modified Utaut2 Model. It Means Both Male And Female Had The Same Perceptions Towards The Variables Mentioned Earlier. A Research By Indrawati & Mansur Also Showed The Modified Utaut2 Model Factors Towards Behavioral Intention To Adopt @Wifi.Id Service Is Not Moderated By Gender (Indrawati, 2017).

Based On The Results Of The Overall Calculation Using Smartplsotware, The Final Model Supported By This Research Data Is Shown In Figure 2
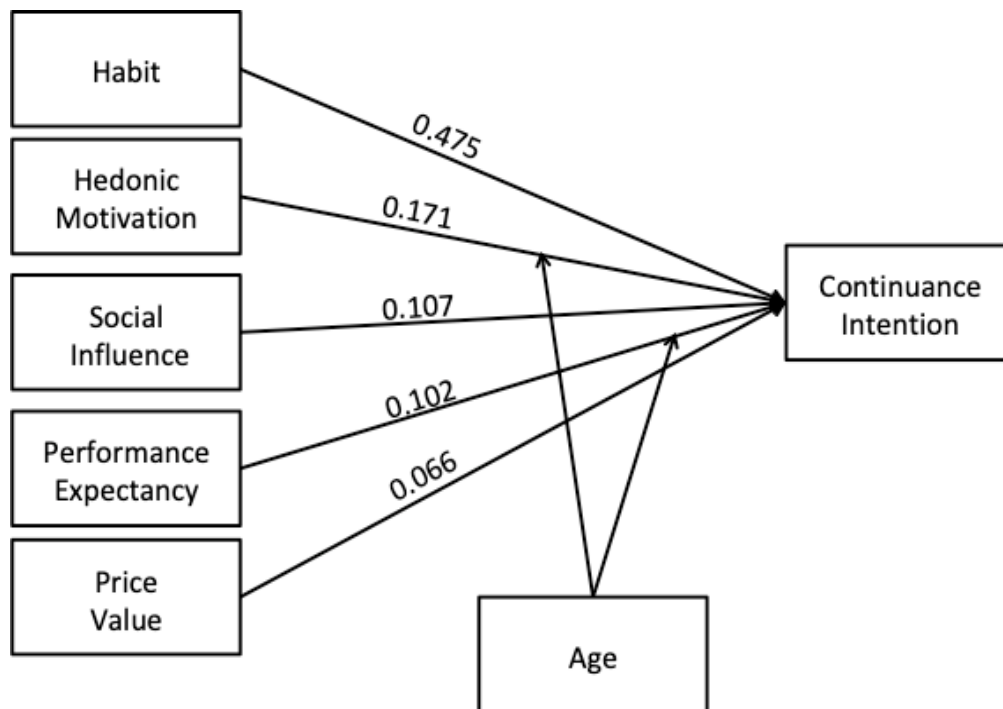

Figure 2 : The Final Research Model For Continuance Intention In Adopting Waze In Indonesia (Source: Made By Authors Based On Smartpls Data)

Conclusion And Recommendation

A.   Conclusion

The R^2 Value In The Research Model Of This Study Was 0.701 Or Equal To 70.1% Which Means The Proposed Utaut2 Model For This Research Could Be Used For Predicting The Continuance Intention Of Waze Application In Indonesia. Due To The Strong Explanatory Power, Hence The Model Is Categorized As A Good Model.

In This Study, There Were Five Factors Which Influenced Consumer's Continuance Intention In Using Waze Application In Indonesia. The Highest To The Lowest Influence Consecutively Were Habit, Hedonic Motivation, Social Influence, Performance Expectancy And Price Value While The Rest Of The Variables Were Influenced By The Other Factors That Were Not Studied In This Research.

The Moderating Variable Age Only Affected Performance Expectancy And Hedonic Motivation But Not The Rest Of The Factors On The Modified Utaut2 Model Of This Research. However, Gender Did Not Affect The Influence Of The Modified Utaut2 Model Factors Towards The Continuance Intention Of Consumers In The Context Of Waze Application In Indonesia. It Means Both Male And Female Had The Same Perceptions Towards The Variables Mentioned Earlier.

From The Result Of This Research, Waze Management Could Do Improvement On The Variables Influencing Continuance Intention In The Context Of Waze Application In Indonesia Based On The Modified Utaut2 Model. By Making A Business Plan Based On These Variables, Waze Management Could Have A Better Understanding About The Consumers' Preferences.

B.   Recommendation

Below Are The Suggestions For Waze Management Based On The Variables That Had The Highest Influence To The Lowest Influence Towards The Consumer's Continuous Intention In Adopting Waze Application In Indonesia:

Habit Had Become The Strongest Predictor From Modified Utaut2 Model In Predicting Continuance Intention To Use Waze Application, So This Variable Is The Main Priority To Be Considered. It Means To Make Sure That Consumers Use Waze Continuously, Waze Management Need To Make Sure The Use Of Waze Application Has Become A Habit For Them. In Order To Do That, Waze Management Needs To Improve Its Value In Order To Be Considered Superior To Exceeds The Barriers That Consumers Have For Not Using Waze Application. Waze Management Can Also Make A Push Notification As The Reminder Every Time It Detects Users Are On The Vehicle So The Users Are Reminded To Use Waze Application On Every Driving Activities.

Hedonic Motivation Was The Second Highest Variable That Predicts The Continuance Intention Of Waze Application. So To Do The Improvement Based On This Variable, Waze Community Can Be Used To Attract Other Users. People In Waze Community Love Waze And Its Service, So They Can Share Their Unique Enthusiasm Towards Waze Application With Other Customers And Make Fun Customer-To-Customer Relationships. Testimonials From Current Customers Especially The Fun And Honest Kind Can Generate More Eanthusiasm Of Waze Application From Prospective Costumers And Increase The Loyalty From Existing Customers. The Entertaining Testimony Of Using Waze Is Important For Consumers. The Improvement Can Also Be Done By Using The Information From The Consumer's Past Driving Destinations To Recommend The Users The Place To Drive That Meet Users Hobbies, Interests, And Ideas So The Users Can Be More Interested In Using Waze Application.

Social Influence Was The Third Variable That Influences The Continuance Intention Of Waze Application. It Means Family, Relatives And Important Parties Are Influencing Waze Users To Adopt Waze Application. Therefore, Marketing From The Waze Must Be More Vigorous In Promoting The Benefits Of Using The Waze Application So That Many Consumers Are Interested, Also Opinion Leaders In A Group Can Be Used As Endorses Of Waze Application As A Solution To Increase Number Of Users.

Performance Expectancy Was The Fourth Variable That Predicts The Continuance Intention Of Waze Application. It Means Waze Application Users Believe That Using Waze Application Will Help Him Or Her To Attain Gains In Daily Driving Performances. To Improve The Performance Expectancy, Waze Management Needs To Find Out What The Users Are Really Requesting. If The Company Know What The

Users Are Looking For, They Will Be Able To Provide The Maxium Service And The Function Of Waze Application Will Be Much More Useful. Waze Management Can Do A Competitor Analysis And Do Strategic Planning For Improvement Of Service Quality To Ensure Waze Application Can Provide The Best Navigating App When It Is Used To Save Time While Driving.

Price Value Was The Least Variable That Predicted The Continuance Intention Of Waze Application. It Means Consumers' Cognitive Trade-Off Between The Perceived Benefits Of Waze Application And The Monetary Cost Become One Of The Factors For Consumer To Use Waze Application. As Price Value Has The Least Score, Waze Management Just Needs To Maintain The Practicality Usage Of Waze Application. As Long As Users Can Get The Information Faster And Can Get So Many Advantages Such As To Find Out The Road Conditions In Real-Time From Waze Application, It Is Okay For The Users To Pay The Internet Data To Access It.

Future Researches Are Expected To Do The Study In The Field Of Mobility But With The Different Object. Also, Future Studies Could Extend The Current Research By Analyzing The Variables Behind Resistance To Waze Application.

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