1. INTRODUCTION
1.1. Research Background

Food neophobia is defined as the reluctance to eat and/or to avoid unfamiliar food due to the characterization of human to be neophobic with respect of food (Pliner & Hobden, 1992). In order to measure food neophobia, a method developed by Pliner and Hobden in 1992 had been successfully established an approach on the measurement of the trait of food neophobia. This scale can be used to categorize consumers according to their responses in food neophobia scale test. However, the application of food neophobia scale in terms of measuring the food neophobia among humans in Indonesian region has not been developed. Indonesia with 237 millions population based on the national statistics at 2010, have potential food neophobia issues which may impact the food preferences, thus affecting the quality, variety, and healthiness of diet in each person. Another study describes food neophobia as a personality trait, a continuum along which people can be placed in terms of their tendency to accept or avoid new foods. It is also described as a form of behavior, involving the avoidance of novel foods in a particular situation. There are three main reasons for food rejection by humans: aversion, danger, and disgust (Schnettler et al., 2013).

Food Neophobia Scale or FNS primarily developed in English by Pliner and Hobden to measure food behaviors. The food neophobia scale (FNS) consists of 10 items of a statement related to the willingness of the respondent to try novel product. Five of them are negative statement and the rest are positive statement. The respondents should write their agreement of each statements by giving a 7 point Likert scale with end point of strongly agree (7) to strongly disagree (1) (Pliner & Hobden, 1992). However it is difficult to apply the methods since the language differences of English and Indonesian will reflect of cultural differences which impact the reliability of the result obtained from the test.

Translations of food neophobia scale have been reported in some researchs such as in Brazilian Portuguese, Swedish, European Portuguese, etc (Previato & Behrens, 2015). The translation and validation of the questionnaire are needed because of the difference
cultures, including beliefs, attitudes, and views on life of each population. Neophobia is a personality trait that manifests itself differently depending on people’s age, socioeconomic and educational level and degree of urbanization (Previo & Behrens, 2015). A study using FNS in the United States of America, Sweden, and Finland suggested that psychometric analyses are required to validate the FNS scale and help with comparing FNS scores across countries (Ritchey et al., 2003). In order to obtain the reliable questionnaire, the validation and translation of food neophobia scale into Indonesian version are needed. The reliable result of food neophobia scale in Indonesian version will contribute in wide aspects of knowing the local eating preferences and helping researchers in further studies or in educational reason to improve consumer’s food choices.

1.2. Literature Review

1.2.1. Food Neophobia
The feeding behavior of human in respect of the properties of both food product and individual is associated by a number of different factors. These factors are intrinsic sensory properties of food, physiological state of the organism which promotes or inhibits food research and consumption, and the cognitive and motivational factors of the individual in relation with the reluctance and/or avoidance of unfamiliar food that is never encountered before, known as food neophobia (Dematte et al., 2014). The avoidance of unfamiliar food is predicted to have adaptive value, providing protective function in a potentially hostile food environment. On the other hand, through the advantages of omnivory, the omnivore must be willing to try novel foods. This dilemma is that humans, along with other omnivorous animal must both willing to try and avoid novel foods.

Number of factors have been shown to temporary affect the degree of food neophobia in humans and other animals. Those factors are familiarities in novel foods, pre-exposure to novel foods, poisoning experience towards novel foods (Pliner and Hobden, 1992). Cultural and social factors are also powerful extrinsic factors that can control food acceptance and perceived quality. The powerful influence of culture in food acceptance
can be easily seen in the strict dietary avoidance of some food products based on their
cultural and religion conditions (ex. pork in Jews and Moslems). They usually perceive
them as unclean or disgusting and in the contrary, be acceptable and well liked by those
individuals who are not part of the culture (Moskowitz et al., 2012). Each region have
their own perception based on their cultural experience. There are some foods that are
popular in some countries but some are not. It is also stated that there is a clear
difference between western and eastern evaluation of functional food. In this context,
Franchi (2012) in Baba et al (2015) mentioned that beliefs and identity influence the
preferences by indicating to individuals what foods are ‘good’ and ‘right’ (Baba et al.,
2015).

In term of measuring food neophobia, a method developed by Pliner and Hobden (1992)
had been successfully approached the measurement of the trait of food neophobia. This
scale can be used to categorize consumers according to their responses to food
neophobia. The consumers who obtained the score \( \leq 16.4 \) were classified as neophillic.
The consumer who belong in neutral group were those who obtained the score interval
16.5 - 38.5, and the neophobic group were consumer with the score higher than 38.6
(Previoato & Behrens, 2015). The food neophobia scale (FNS) consists of 10 items of a
statement related to the willingness of trying novel product which 5 of them are
negative and the other statements are positive. The respondents should write their
agreement of each statements by giving a 7 point Likert scale with end point of strongly
agree (7) to strongly disagree (1). The 10 items is presented in Table 1 below (Pliner &
Hobden, 1992).

Table 1. Food Neophobia Scale

<table>
<thead>
<tr>
<th>No.</th>
<th>Statement Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I am constantly sampling new and different foods.*</td>
</tr>
<tr>
<td>2</td>
<td>I don’t trust new foods</td>
</tr>
<tr>
<td>3</td>
<td>If I don’t know what is in a food, I won’t try it</td>
</tr>
<tr>
<td>4</td>
<td>I like foods from different countries*</td>
</tr>
<tr>
<td>5</td>
<td>Ethnic food looks too weird to eat</td>
</tr>
<tr>
<td>6</td>
<td>At dinner parties, I will try a new food*</td>
</tr>
<tr>
<td>7</td>
<td>I am afraid to eat things I have never had before</td>
</tr>
<tr>
<td>8</td>
<td>I am very particular about the foods I will eat</td>
</tr>
<tr>
<td>9</td>
<td>I will eat almost anything*</td>
</tr>
<tr>
<td>10</td>
<td>I like to try new ethnic restaurant*</td>
</tr>
</tbody>
</table>
1.2.2. Translation and validation of questionnaire

In terms of research that involves cross-linguistic and cultural boundaries, direct attention to the utilization of language and cultural factors when verbal expression, verbal comprehension, or both are necessary, at any level, in the systematic collection of data expected to show comparable reliability and validity across the linguistic and cultural boundaries. Instrument development for multi-national, cross-cultural research consists of two major phases which are translation and cultural adaptation, and translation validation and documentation. The first phase consists of 10 stages which are:

1) forward-translation;
2) synthesis and resolution of discrepancies from 2 or more forward-translations;
3) back-translation;
4) independent review of back-translation vs source document;
5) revision and iterative development related to discrepancies;
6) consolidation of all translation and review activity into single instrument appropriate for internal review;
7) expert committee review and cultural validity revision;
8) construction of pre-final instrument;
9) independent review of the translation process and documentation; and
10) posting the translation so that others can begin to also contribute to phase II

The second phase is translation validation and documentation consists of 7 stages which are:

11) Pre-testing and instrument review;
12) field testing;
13) instrument revision;
14) formal assessment;
15) score standardization;
16) validation research;
17) multi-national user manual (Ohrbach et al., 2013)
The differences of both phases are in the aim of each phase. First phase is done by the researchers to encompass the creation of the instrument that is ready to be applied to the perspective population. While second phase encompasses testing the instrument for its cultural validity, and then collating empirical information into user manual (Ohrbach, 2013).

1.2.3. Cronbach Alpha Coefficient
Validity and reliability are two basic elements in the evaluation of a measurements instruments like questionnaire. Validity is concerned with the extent of an instrument measures what it is intended to measure. While reliability is focused on the ability of an instrument to measure consistently. The method to measure the internal consistency of a test or scale is called Cronbach alpha coefficient. Alpha was developed by Lee Cronbach in 1951. The value of alpha is expressed in the interval of 0 and 1. The reliability of the questionnaire were considered great (>0.80), good (>0.70) and acceptable (0.60-0.70).The internal consistency describes the extent to which all items in a test measure the same concept or construct and thus it is connected to the inter-relatedness of the items within the test (Tavakol and Dennick, 2011). The determination of internal consistency should be determined before a test can be employed for research or examination purposes to ensure validity which is easily computable (Kotz et al., 2006). Alpha is an important concept in the evaluation of assessments and questionnaire (Tavakol and Dennick, 2011).

1.2.4. Intraclass Correlation Coefficient
Intraclass Correlation Coefficient or in brief is known as ICC is a method to assess the consistency of the measurements independently made by different respondents. According to Ohrbach et al. (2013), internal consistency in term of translating and validating questionnaire is to assess internal fit of items of target language version compared to source language. ICC is one example form of measures of agreements which is most commonly used to asses reliability or reproducibility of observations (Kotz et al., 2006). According to Miot (2016), analysis of agreement tests the capacity of the same subject/phenomenon, using different instrument, or using the same
instrument at different times or when performed by different examiners, or some combinations of these conditions to arrive at identical results (with the same units of measurements). These agreement analysis can be aimed to calibrate some instruments, tests reliability of scales/measures, assessment of the equivalence of measurement tools, judgment in tests of ability, test of repeatability or reproducibility, and diagnostic analysis, and psychometric agreement (Miot, 2016).

ICC represents a linear correlation among set of pairs of values when the order in each pair is arbitrary. For an instance, if the researchers want to know an agreement of two independent ratings of a questionnaire done by a set of respondents. ICC is equivalent with the ratio of the variance of the means in classes to the total variances. In other words, if the ICC of a pair of instrument is about 0.90, it means about 90 percents of score variance is coming from the total variance in both instruments. Furthermore, its value also represent of how the rater (instrument) agreeing the measurements of the other instrument they are getting resulting a consistent result (Murti, 2011).

1.2.5. Ethnic Foods

Food has many roles despite of its function to satisfy hunger and physiological needs. Its trends affect the determination of consuming food among each individuals. Food also has a cultural value since people learn first from their childhood. This value creates a food with each background from where they originally come from. This is usually called as ethnic food (Verbeke & Lopez, 2015). Mora (1998) in Verbeke & Lopez (2005) defines ethnic food as the expression of food in terms of attitudes, values, behaviours, and beliefs of a culture that is a symbol of food from its traditions or heritage, religion or national origin. There are two categories based on the preparation of ethnic food. The first group is a food that is considered as familiar because consumers tend to eat often and it is becoming mainstream such as Italian foods (e.g. pizza, spaghetti, etc) and Chinese food (e.g. fried noodles, noodles, etc). The other group is a food that comes from a specific region that consumers are rare to find it since it is unfamiliar.
1.3. Objectives
The objectives of this research were to develop the appropriate and reliable food neophobia scale developed by Pliner and Hobden in 1992 for Indonesia by translation and validation of the method and also to examine the food neophobia traits categorization in both general and focused ethnic food among students in Soegijapranata Catholic University Semarang.