CHAPTER I

INTRODUCTION

1.1 Background

Recently people were becoming more concerned with their health. This cause the demand for functional food to increase. Many of natural food ingredients such as various spices has been studied and shown to have beneficial effect towards the health and therefore they have potential to be used as functional food. While spices has been commonly used as condiments and medicine, use of spice as main ingredient of food product was still rare, partially caused by their strong aroma that was undesirable for some people.

Ginger (Zingiber officinale) was a species of plant whose rhizome has been traditionally used as spices for cooking, beverage, or medicine in many countries such as India, China, and Indonesia. Ginger was known to have several beneficial health effect such as its antioxidant and anticarcinogenic characteristics (Yusof et al., 2008). There were three varieties of commercially grown and sold gingers. The three were red ginger or jahe merah (Zingiber officinale var. Rubrum), small white ginger or jahe emprit (Zingiber officinale var. Amarum), and large white ginger or jahe gajah (Zingiber officinale var. Roscoe). Among the three, jahe merah has the strongest aroma and jahe gajah has the weakest aroma (Setyawan, 2002). In Indonesia one of the use of ginger was as ingredient for functional beverage that was used to promote health. For such beverage, ginger was often mixed with other herbs or spices.
Cinnamon, vanilla, and chamomile were spices that was commonly used in various food product. All of them have aroma that was considered pleasant by most people and therefore has been used to improve the aroma of many food both in cooking or manufactured food. Vanilla especially has been added to many food that was commonly sold such as cookies, cake, or ice creams and was considered one of the most popular flavor. Chamomile were also used in beverage product for its pleasant aroma. (Sinha, Sharma, and Sharma, 2008; Wong, Ahmad-Mudzaqqir, and Wan-Nurdiyana, 2014; Sharafzadeh and Alizadeh, 2011).

In this research, the effect of using different variety of ginger as well as the addition of cinnamon, vanilla, and chamomile on the acceptability of ginger-based beverage product will be studied. Furthermore, the product were analyzed for its feasibility as a potential product for a business and a business plan for it were developed.

1.2 Research Problem

Despite its potential as functional food, the acceptability of ginger in food product has been low due to its strong flavor that consumer often found undesirable. Moreover ginger has several different varieties that has difference in its flavor and chemical content but currently it was not known which has the best acceptability when used as a food product. In this research, ginger-based drink was developed using different ginger variety to determine the product with the highest acceptability. Several other spices, namely cinnamon, vanilla, and chamomile that has potential to improve the product’s acceptability would be mixed with the product and its effect towards sensory characteristics, acceptability and the functional effect of the product were studied. The
feasibility of ginger-based beverage as a potential product for business was studied and the business plan for such business was developed.

1.3 Objectives

1.3.1 General Objectives

The general objective of this research was to develop a ginger-based beverage that has high acceptability with consumers by using different ginger varieties and mixing it with cinnamon or vanilla and to develop a business plan using the beverage as a product.

1.3.2 Specific Objective

The specific objectives of this research are:

1. To study the effect of different ginger variety towards the acceptability and physicochemical characteristics of the ginger-based beverage

2. To study the effect of addition of several different spices, namely cinnamon, vanilla, and chamomile towards the acceptability and physicochemical characteristics of the ginger-based beverage.

3. To study the feasibility of the ginger-based beverage as product for a business and to develop business plan based on the product.