

## Sample of thesis English editing

Field of research: Marketing

### INTRODUCTION

#### 1.1 Background and Motivation

Since the Industrial Revolution, global temperatures ~~have~~ risen 0.76 degrees ~~Celsius~~. The average temperature increase doubled from 1960 to 2010, compared with the period from 1860 to 1960. (Labay & Kinnear, 1981). One of the main reasons is energy-related carbon dioxide emissions. Thus, people are looking for solutions on how to reduce carbon dioxide waste and save energy. ~~The~~ Smart Grid technology has developed because of the urgency of global warming. ~~This~~ ~~Smart Grid~~ technology can optimize energy efficiency and ~~to~~ improve ~~the~~ power quality worldwide. Many countries ~~have~~ become devoted to building such smart grids. This year, Taiwan announced that ~~it~~ Taiwan will invest in the Smart Grid industry, which is expected to improve the efficiency of energy use and reduce carbon dioxide emissions. (Lubienski, 2003).

When a Smart Grid technology system is ~~built~~, Power Line Communication (PLC) technology serves as the connector. PLC allows people to use ~~the~~ existing power system as a networking application. PLC technology was invented in the late 1990s, but the speed of PLC's network transmission was as slow as 14Mbps at that time. After ~~the~~ PLC technology's transmission rate ~~can~~ increase above 200Mbps, ~~in this era~~, PLC ~~became~~ widely discussed. (Rao & Monroe, 1988). In Taiwan, ADSL and networks are well-constructed, but the pace of Hhomeplug adoption is still slow.

As ~~PLC power line communication~~ technology has ~~developed~~, the speed of new product development of related products/technology has also ~~would~~ accelerate, and this acceleration would even be ~~even much~~ faster ~~than if it weren't for varying levels of product popularity, which affect the level of consumer's adoption by consumers popularity~~. Some concepts of PLC products are good, but they still are not able to meet ~~the~~ consumer's needs. In addition, the life cycle of relevant PLC products is short because standard specifications of PLC products have not been established ~~unified~~, and the market changes rapidly. ~~in market are fast~~. (Theall, 2006).

This study seeks to investigate the variables ~~that will~~ impact

**Comment [BCG1]:** CHECK: You are capitalizing Smart Grid in other places in the document, so we should stay consistent and keep it capitalized everywhere.

consumers' buying intentions ~~for~~ PLC products. If manufacturers understand what factors influence a consumer's purchase intention, they can then ~~and~~ develop new products that ~~o~~ align with customers' needs. Furthermore, ~~the~~ management teams can create effective marketing strategies to target ~~enhance~~ certain behaviors and therefore affect the consumer's purchase intention.

~~Thus, in order to~~ First we must explore the relationship between ~~of~~ purchasing intention ~~products~~ ~~purchasing intention with and~~ consumer characteristics and a product attributes. Homeplug is a product demonstrating; an application of PLC technology; and thus was chosen as ~~become a the~~ research ~~o~~ subject ~~o~~ for this study. A ~~T~~ thorough review of related literature on ~~f~~ consumer behavior, consumer characteristics, and product attributes ~~to~~ served as a basis to build a framework for this study and the basis for hypotheses. This study explores several variables that will impact consumers' willingness to purchase an innovative product. Generally, these variables can be classified into two categories; ~~one is~~; personal characteristics of consumers and; ~~the other one is~~; new product attributes.

## Final text

Since the Industrial Revolution, global temperatures have risen 0.76 degrees Celsius. The average temperature increase doubled from 1960 to 2010, compared with the period from 1860 to 1960 (Labay & Kinnear, 1981). One of the main reasons is energy-related carbon dioxide emissions. Thus, people are looking for solutions on how to reduce carbon dioxide waste and save energy. Smart Grid technology has developed because of the urgency of global warming. This technology can optimize energy efficiency and improve power quality worldwide. Many countries have become devoted to building such smart grids. This year, Taiwan announced that it will invest in the Smart Grid industry, which is expected to improve the efficiency of energy use and reduce carbon dioxide emissions (Lubienski, 2003).

When a Smart Grid technology system is built, Power Line Communication (PLC) technology serves as the connector. PLC allows people to use their existing power system as a networking application. PLC technology was invented in the late 1990s, but the speed of PLC's network transmission was as slow as 14Mbps at that time. After PLC technology's

transmission rate increased above 200Mbps, PLC became widely discussed (Rao & Monroe, 1988). In Taiwan, ADSL and networks are well-constructed, but the pace of Homeplug adoption is still slow.

As PLC technology has developed, the speed of new product development of related products/technology has also accelerated, and this acceleration would even be faster if it weren't for varying levels of product popularity, which affect the level of adoption by consumers. Some concepts of PLC products are good, but they still are not able to meet consumer needs. In addition, the life cycle of relevant PLC products is short because standard specifications of PLC products have not been established, and the market changes rapidly. (Theall, 2006).

This study seeks to investigate the variables that impact consumers' buying intentions for PLC products. If manufacturers understand what factors influence a consumer's purchase intention, they can then develop new products that align with customers' needs. Furthermore, management teams can create effective marketing strategies to target certain behaviors and therefore affect the consumer's purchase intention.

First we must explore the relationship between purchasing intention and consumer characteristics and product attributes. Homeplug is a product demonstrating an application of PLC technology and thus was chosen as the research subject for this study. A thorough review of related literature on consumer behavior, consumer characteristics, and product attributes served as a basis to build a framework for this study and the basis for hypotheses. This study explores several variables that impact consumers' willingness to purchase an innovative product. Generally, these variables can be classified into two categories: personal characteristics of consumers and new product attributes.