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Consumer Credit Card Debt and Immigrants: A Cross-Sectional Study of U.K. Immigrants' Financial Capability

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Abstract

Consumer Credit Card Debt and Immigrants: A Cross-Sectional Study of U.K. Immigrants' Financial Capability

By

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Dissertation Submitted in Partial Fulfillment

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Abstract

The problem addressed in this study is the ubiquitous nature and high level of consumer debt associated with certain demographics; however, research in the context of immigrants in the U.K. are limited. The problem is the lack of information about the association between credit card debt and immigrants, specifically on whether the income gap between U.K. immigrants and British citizens affects the level of consumer debt. The purpose of this quantitative cross-sectional correlational study is to examine whether there is an association between the income gap that exists between immigrants and British citizens and their respective levels of consumer debt, through an analysis of data collected by the British Household Survey using the tri-component attitude model (ABC model). The ABC model is tested using regression analysis to determine the proportion of the variation in the dependent variable explained by the independent variables. The research question formulated to guide the study is designed to explore the extent to which the ABC model indicates the relationship between consumer debt and immigrants on the income gap between immigrants in the U.K. and British citizens. In alignment with this purpose, the ABC model forms the theoretical foundation for the study. The sample for this analysis is U.K. immigrants included in the British Household Panel Survey (BHPS), which runs from 1991 to 2017.The findings from this study may assist in positive social change by providing specific information to banks and lending institutions on how they can manage the credit This study might help in expanding the body of knowledge about the association of credit debt and immigrants in UK, which has received a growing interest among researchers in the field of finance, economics and ethnopolitics.

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Dedication

I dedicate this study to my family. My wife Evreth and children Phillipa, Julian, and Helena, and my past University tutors, Doctor Richard McBain and Professor Victor Dulewicz. These are the people in my life who provided encouragement and served as an example of what one can accomplish with hard work, persistence, and belief.

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Chapter 1: Introduction to the Study

As of 2016, there were approximately 65 million credit cards in circulation throughout the United Kingdom. At the same time, the average British consumer had approximately $2,452 worth of credit card debt (Bank of England, 2016). Similarly, in 2016, the average adult consumer in the United States had approximately $5,540 of credit card debt (Federal Reserve, 2016), while the average Australian's credit card debt amounted to approximately $3,100 (Ray & Gharemani, 2016). These statistics evidence that credit card debt is a worldwide concern that impacts financial institutions and consumers in many different ways.

Credit card debt is not equally distributed among all individuals, with some being more vulnerable to credit card related debts than others. Scholars argue that the vulnerabilities associated with certain individuals acquiring more credit card debt than others may be predicted by specific factors, such as personality traits, social norms, socioeconomic status, and other demographic variables (Caputo, 2012; Dean, Joo, Gudmunson, Fischer, & Lambert, 2013; Drentea & Reynolds, 2012; Kamleitner, Hoelzl, & Kirchler, 2012; Oksanen, Aaltonen, & Rantala, 2015; Sotiropoulos & D'Astous, 2013). Despite the vast amount of existing literature identifying the factors associated with the accumulation of credit card debt, there is a scarcity of available research investigating whether immigrant credit card debt varies from that of native U.K. citizens. As such, the focus of this study was on examining the relationship between immigrant demographics and credit card debt.

The remainder of this chapter includes a discussion of the background to the research problem followed by the purpose of this study, the research questions, and hypotheses. I also outline the theoretical framework of the study and define specific terms relevant to the study. I then describe the assumptions, scope, and limitations of the study. A summary of the study and an explanation of its significance conclude this chapter.

Background of the Study

The financial crisis of 2008 had far-reaching impacts on financial institutions throughout the world, especially regarding how credit is distributed by banks and used by consumers. According to a Bank of England (2016) report on household credit conditions between the months of May and June 2016, there was a slight tightening in the credit available to households. Findings from lenders who responded to the Bank of England's survey indicated that, while secured credit interest rates remained fairly stable over the preceding 2 years, the availability of unsecured credit had reached its highest level since 2007 (Bank of England, 2016). However, it is important to note that most of the data in the report relied on information collected prior to the referendum dissolving the United Kingdom's affiliation with the European Union, which somewhat complicates the drawing of conclusions about the current state of credit in the United Kingdom (Bank of England, 2016).

It is important to understand the differences between secured and unsecured credit, and how those two different forms of credit impact overall credit card debt. The credit card companies first introduced secured credit cards in the late 1970s as a way for consumers to either build or repair their credit history (Santucci, 2016). Unlike traditional

credit cards, which do not require collateral from the consumer, the consumer must provide a cash deposit for a secured credit card. Purchases made with a secured credit card are treated in the same way as traditional credit card purchases, in that payment for the purchase is technically in the form of a loan by the card issuer (Santucci, 2016). Furthermore, in contrast to prepaid debit cards, credit bureaus receive reports on information regarding secured credit card balances and delinquencies, which may negatively impact the secured credit card owner's credit card debt consumer.

The behaviors that influence credit card use and debt involve many complex factors, such as the desire to communicate and define individual identity through social connections and consuming. Since individuals tend to compare themselves to those within their social group, social norms are highly associated with overuse of credit cards (Kamleitner, Hoelzl & Kirchler, 2013; Sotiropoulos & D'Astous, 2012). Individuals who tend to compare themselves to those with a higher financial status, may seek to possess items associated with a lifestyle beyond their means (Kennedy, 2013). Since credit cards enable individuals to pay for items they would otherwise not be able to afford, credit card access may exacerbate financial debt. Existing research confirms this assertion through evidence suggesting that people overspend on credit cards driven by the perceived expectations of those around them (Kamleitner et al., 2013). At the same time, research has also found that if debt is the norm in a particular social circle, an individual's concerns about being in debt may be reduced (Kamleitner et al., 2013).

In addition to social pressures and norms, psychological factors may also play a role in credit card debt. Some individuals spend for personal power, prestige, or image;

other consumer behavior is related to anxiety and distrust (Dean et al., 2013; Khare, Khare, & Singh, 2012; Sotiropoulos & D'Astous, 2013). Key personality traits that can lead to credit card spending behavior include materialism and lack of self-control (Mittal & Griskevicius, 2014; Oksanen et al., 2015; Russell, Whelan, & Maitre, 2013; Sotiropoulos & D'Astous, 2013; Yam, Bruce, & Xu, 2012; Yang & Lester, 2014). Materialistic individuals tend to seek a certain status or lifestyle and believe that purchasing material possessions will lead them to that goal (Yam et al., 2012), while impulsive buyers desire immediate actions and often show little consideration for long-term consequences (Peltier et al., 2013). Related to these personality issues is compulsive buying, which entails engaging in repetitive or ritualistic purchasing as a response to adverse emotions or events (Sotiropoulos & D'Astous, 2013). Being materialistic, as well as experiencing low self-esteem, narcissism, depression, anxiety, and stress can be predictive of compulsive buying behaviors (Khare et al., 2012; Nga & Yeoh, 2015; Yang & Lester, 2014). Finally, individuals who desire high sensations tend to risk more and engage in problematic financial behaviors at a higher rate than low sensation seekers, which may lead to elevated credit card use (Dean et al., 2013; Kamleitner et al., 2012; Oksanen et al., 2015; Peltier et al., 2013). Conversely, the more cautious a consumer is, the lower his or her debt tends to be (Kamleitner et al. 2012). Although research exists on the relationship between psychological traits and credit card debt, this research in general does not consider the psychological traits within the context of demographic factors, such as immigration. If a difference does exist between immigrant and native-born citizens'

credit card debt, it may imply that immigrant status and immigrants moderate the relationship between psychological factors and credit card debt.

There are several demographic variables strongly linked to credit card debt, of which income is of special relevance to immigrants. Individuals with lower income have been shown to have a higher probability of accumulating chronic debt because they are more likely to lack a steady income source and, in turn, pay for more of their expenses with credit cards (Oksanen et al., 2015). Those with a lower income are also more likely to have credit applications declined (Kamleitner et al., 2012). Additionally, Naerum and Vernekohl (2012) found that individuals with higher income and wealth, with the exception of those in the highest income bracket, do not prioritize teaching thrift to their children. Research has also shown that income affects the type of credit used. Specifically, individuals in higher income brackets tend to have credit lines with lower interest rates, while those in the middle-income and low-income brackets generally have credit cards with higher interest rates. In particular, younger families with dependent children are more likely to own credit cards with high interest rates (Kamleitner et al., 2012). While it may seem counterintuitive that positive outcomes could arise from having more debt, evidence suggests a positive correlation between increasing debt and increasing income (Dean et al., 2013). Nevertheless, there is ongoing debate among scholars regarding whether income can accurately predict credit card debt, especially since some research has indicated that income level is unrelated to ownership of a credit card (Dean et al., 2013).

Other demographic variables that may predict credit card debt include education and financial literacy. It has been found that credit card users often have higher levels of education than non-users (Kamleitner et al., 2012); however, Sotiropoulos and D'Astous (2012) associated higher credit card debt with lower levels of education. More specifically, there is an association between lack of financial knowledge, financial education, poor credit, and negative credit card behaviors. Individuals with lower levels of financial literacy have been found to be more prone to making mistakes with household financials in general, whereas those with positive habits, such as paying credit card bills on time, tend to be more financially literate (Dean et al., 2013; Sotiropoulos & D'Astous, 2013). Financial literacy has been found to be low in the general population and even lower for particular demographics, including women from low-income backgrounds who have little education and are from rural areas, as well as young adults, and the elderly (Caputo, 2012; Klapper et al., 2012; Oksanen et al., 2015).

Finally, a large amount of research has explored financial differences between ethnic groups. For example, DeSilva and Elmelech (2012) attributed Asian Caucasian differences in home ownership to immigration and geographical patterns of residence. In other studies, African Caribbeans and Asians were found to be most likely to experience short-term and intermittent debt (Caputo, 2012; Drentea & Reynolds, 2012). Traub (2014) found that, while Asians had less credit card debt, four in 10 Asian households with credit card debt depended on their cards to cover rent, groceries, utilities, and mortgage payments. Similarly, Ruetschlin and Asante-Muhammad (2013) discovered that while African Caribbean households were reducing their debt overall, more than 40% of

African Caribbeans accumulated debt as a result of using credit cards to pay for basic household expenses that paychecks would not cover. On the other hand, Caucasian individuals were found to have a higher likelihood of being able to access other options for short-term liquidity and avoid those high interest rates (Ruetschlin & Asante-Muhammad, 2013). Minorities and recent immigrants may also face specific problems due to their lack of credit history, such as increased interest rates (Traub, 2014).

Despite immigrants being one of the most likely demographics to make financial mistakes (Klapper, Lusardi, & Panos, 2012), there is a dearth of literature specifically examining immigrant status and credit card debt. What research is available has revealed that, whether through stock ownership, asset ownership, or opening a bank account, immigrants engage with traditional financial markets at a lower rate than native citizens (Kim et al., 2012). This gap in the literature is particularly concerning since immigrants' financial wellbeing and economic integration is an important part of their cultural integration (Painter, 2014). On this point, Karunarathne and Gibson (2014) found that a large number of immigrants who emigrate from poor countries to a rich country have lower rates of participation in the financial world. This might be related to language and cultural barriers, or to immigrants having limited previous experience with financial institutions in their home countries. For many immigrants, it can take nearly a whole generation for financial assimilation to occur, which impedes their overall financial experience. Zhan, Anderson, and Zhang (2012) attributed the tendency of immigrants to have delayed financial assimilation in a new country to their increased use of informal financial services, such as check cashing outlets and money orders. Research has also

indicated that immigrants' lack of participation in unfamiliar financial markets is partially due to having lower levels of financial education when compared to native citizens (Zhan et al., 2012).

Problem Statement

The ubiquitous nature of credit cards offers many benefits to consumers and merchants alike; however, the use of credit cards can also give consumers a false sense of financial security (Awanis & Cui, 2014). As Awanis and Cui (2014) explained, consumers' willingness to make purchases with credit cards can affect their attitudes, and consequently, their overall purchasing behavior. According to the Federal Reserve (2013), the average credit card debt per consumer in the United Kingdom was approximately $6,400, and according to the Bank of England (2015), the credit card debt in the United Kingdom was at 63.3 billion. The general research problem addressed in this study is that, due to the ubiquitous nature and high debt associated with credit cards, there have been numerous studies linking credit card debt to certain demographics; however, such findings in the context of immigrants in the United Kingdom are limited (Painter, 2013; Painter, 2014; Painter, Holmes, & Bateman, 2015; Painter & Qian, 2016). Although there is a lack of information about the association between credit card debt and immigrant status, and the income gap between U.K. immigrants and British citizens (Ha & Krishnon, 2012), but associations have been established in other countries, such as the United States, between credit card debt and immigrant status, and between credit card debt and income. Kamleitner et al. (2012) concluded that income level is positively related to responsible financial organization, such as paying bills in a timely manner and

saving money. The results of their study also showed that those with lower income were most likely to be refused credit, and that lower income families tended to rely on credit cards to pay for basic living necessities and maintain a stable lifestyle. In contrast, higher-income families used their credit cards to improve their lifestyle. Results from past studies (e.g., Drentea & Reynolds, 2012; Kamleitner et al., 2012; Oksanen et al., 2015; Russell et al., 2013) have highlighted that income is positively correlated with credit card debt and that those belonging to a higher income bracket have a higher likelihood of accumulating debt and a higher demand for debt (Keese, 2012b; Oksanen et al., 2015).

The association between credit card debt and immigrant status is shown in a study by Traub (2014), where the researcher found that, while Asians had less credit card debt, four in 10 Asian households with credit card debt depended on their cards to cover rent, groceries, utilities, and mortgage payments. Ruetschlin and Asante-Muhammad (2013) discovered that while African American households were reducing their debt overall, more than four in 10 African American households with credit card debt relied on credit cards to pay for basic living expenses because their paychecks and savings did not suffice. Killewald (2013) found that, among young adults, Caucasian households were more likely than non-Caucasian households to hold various types of debt, such as mortgages, auto debt, and credit card debt, and to have higher debt-to-income ratios.

My goal for this study was to close a gap in the research by investigating the association between consumer credit card debt and immigrant status among U.K. immigrants and native British citizens, and how this relates to the income gap between these groups. The findings of this study may assist in bringing about positive social

change by providing specific information to banks and lending institutions on how they can manage the credit lines of the specific groups studied.

Purpose of the Study

The purpose of this quantitative cross-sectional correlational study was to examine whether there was an association between credit card debt and the income gap among U.K. immigrants and British citizens through an analysis of data collected by the British Household Survey using the tri-component attitude model (ABC model). According to Dwyer (2018; 2011), it is possible to obtain important insight into the causes of wealth disparity across different ethnicities by identifying the relationship between credit card debt and immigrant status (Dwyer 2018; 2011). To this end, I used the British Household Panel Survey to determine whether or not a correlation exists between credit card debt and immigrant status among U.K. immigrants and British citizens. The results from this study may provide additional insight into why from 2005 to 2009 household liabilities increased, while the value of assets was declining (Kochhar et al., 2011). The findings from this study may also enable banks and other financial services institutions to obtain a better understanding of credit card debt behavior among U.K. immigrants, across ethnic groups. The findings also provide specific information to financial policy makers that can be used to reduce the income gap between U.K. immigrants and British citizens.

Research Question and Hypotheses

The purpose of this quantitative cross-sectional correlational study was to examine whether there was an association between credit card debt and the income gap

among U.K. immigrants and British citizens through an analysis of data collected by the British Household Survey using the ABC model. The independent variable in this quantitative study was immigrant status, and the dependent variable was credit card debt. I used the two variables to examine the association of income gap in the target population. I presented the number of subjects and summary statistics of the variables using the mean, standard deviation, minimum, and maximum. I tested the associations between the variables using correlation analysis and ANCOVA. In instances where the ANCOVA determined a significant relationship between the independent and dependent variable, a post hoc Tukey's honest significance test of multiple comparison was conducted to further clarify the relationship between independent and dependent variables.

I used the following research questions and hypotheses to guide this study:

Research Question 1 (RQ1): To what extent does the ABC model indicate the relationship between credit card debt and immigrant status on the income gap between immigrants in the U.K. and British citizens?

Null Hypothesis ($H_0$1): The independent variable of immigrant status does not significantly relate to the dependent variable of credit card debt between immigrants in the U.K. and British citizens in terms of income gap, when controlled for demographic factors.

Alternative Hypothesis (H_a1): The independent variable of immigrant status is significantly related to the dependent variable of credit card debt between immigrants in

the U.K. and British citizens in terms of income gap, when controlled for demographic factors.

The dependent variable in this study was credit card debt; the independent variable included the following demographic factors: country of birth (United Kingdom, non-United Kingdom.), ethnic group, years spent as an immigrant, number of persons in household, and highest educational attainment. As the variable immigrant status involves multiple demographic factors, such as the country of birth, immigrants, years spent as an immigrant, household size, and educational attainment, these factors were included within the variable of immigrant status within the ABC model.

I used the following multifactor ANCOVA model to test the hypotheses:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

where, Y was the dependent variable of credit card debt measured on a scale of 1 through 5, as described in the operationalization of variables.

X_1 was immigrants, the particular coding of which was decided during data analysis based on the breakdown of ethnicities present in the dataset. The analysis included the following ethnicities: Indian, Mixed Indian, Pakistani, Bangladeshi, Sri Lankan, Caribbean/West Indian, Mixed Caribbean/West Indian, North African, Black African, African Asian, Chinese, Far Eastern, Turkish, Middle Eastern/Iranian, and None of these.

X_2 was educational level, measured by the different categorical groups of education level and using the coded levels present in the BHPS raw data.

X_3 was household size, measured by the actual number of persons living in the household.

X_4 was number of years living in the United Kingdom as an immigrant, measured by the actual number of years the immigrants had been living in the United Kingdom. ε was the error term reflecting factors other than the above independent variables, and β represented the associated parameters of each variable.

Theoretical Foundation

In line with the purpose of the study, the ABC model was used. The ABC model is one way to better understand consumer behavior and is the basic model of consumer attitude (Solomon, 2017). Researchers have used the model to understand consumer attitudes and their relationship to consumer behavior, as it helps researchers to explain how consumers process information that directly influences their choices. In this study, the model was used to understand the relationship between credit card debt and immigrant status among U.K. immigrants and British citizens.

The linguistic origins of the term ‘attitude’ can be traced back to the Latin word used to describe a person’s physical position, which in general indicated the actions that an individual would be engaging in (Asiegbu, Powei, & Iruka, 2012). Scholars have identified that an individual’s attitude is directly influenced by their environment, with past environmental stimuli either negatively or positively impacting how they view an object (Asiegbu et al., 2012). The learned predispositions to react either favorably or unfavorably to an object as a tendency of an individual’s attitudes has also been linked with an individual’s overall learned values and beliefs (Asiegbu et al., 2012). While

values can vary depending upon context, values in general refer to the shared beliefs of individuals according to established cultural norms related to what is right and wrong (Asiegbu et al., 2012). Values are also a product of the influence of others within an individual's environment, such as family members, friends, schools, businesses, and religious institutions (Asiegbu et al., 2012). Additionally, cultural values shape how individuals perceive and use products and brands (Asiegbu et al., 2012). The influence that values and attitudes have on consumers' behaviors toward specific objects has gained attention from marketers, especially in relation to how those values impact purchasing behavior (Asiegbu et al., 2012).

In the marketing context, the beliefs that values and attitudes shape are the thoughts that consumers have regarding a specific product or service (Asiegbu et al., 2012). As such, the beliefs of consumers are of special interest to marketers since the success of a brand is predicated on consumers' beliefs about the brand. Moreover, a positive brand image is directly related to consumers having an overall favorable opinion about the brand, which influences the overall marketing strategy (Asiegbu et al., 2012). The marketing strategy implemented by businesses may, in turn, impact the beliefs of an individual, since beliefs about products are subjective and based upon an individual's personal experiences of the brand. Because beliefs are directly intertwined with attitudes, it is important to understand that individuals' attitudes tend to endure over time (Asiegbu, Powei, & Iruka, 2012). That is, once individuals have established attitudes regarding how they view others, themselves, objects, and advertisements, those attitudes tend to be long-lasting (Asiegbu et al., 2012). However, attitudes are also subject to modification due to

influences arising from either exposure to new information, membership of a new group, a change in environment, or a desire for satisfaction (Asiegbu et al., 2012).

In an attempt to operationalize the concept of attitude, researchers have identified three primary characteristics of an attitude: The attitude object element, the consistency of an attitude, and that attitudes are learned predispositions (Asiegbu et al., 2012). The attitude object characteristic refers to the attitude an individual has toward any object, whereas the attitudes as learned predispositions characteristic refers to the ways in which attitudes influence behaviors (Asiegbu et al., 2012). Since attitudes are considered learned and therefore malleable in light of new information, marketers seek to capitalize on this by evoking positive attitude object associations among consumers (Asiegbu et al., 2012). While attitudes may manifest through behaviors, it is important to note that the two are not the same (Asiegbu et al., 2012).

Understanding the relationship between attitudes and beliefs is of increasing interest to scholars and marketers alike (Asiegbu et al., 2012). The desire to understand this relationship has inspired some to construct theoretical models that address the core aspects of an attitude to better illuminate and forecast behavior (Asiegbu et al., 2012). Some examples of theoretical models designed with a focus on the composition of an attitude include: Multi-attribute attitude models, the tri-component attitude model, and the attitude-toward-the-ad model (Asiegbu et al., 2012). Although each of these models was designed to comprehensively investigate the components of an attitude, there are varying interpretations of how these components are arranged and interconnected (Asiegbu et al., 2012).

Of particular interest to the current study is the tri-component attitude model, also known as the ABC model. The ABC model is comprised of three primary components: Affect, behavior, and cognition. First, affect refers to how an individual feel about an object, which is a key factor influencing how consumers evaluate brands (Solomon, 2017). Since brand evaluations are one of the major determinants of the intended behavior of the consumer, I used this aspect of the ABC model to determine how U.K. immigrants feel about credit card debt. Next, the behavioral element of the model refers to the intended actions of individuals in relation to their attitudes toward an object, also known as behavioral intention (Solomon, 2017). According to Solomon (2017), behavioral intention is the closest alternative to actually purchasing a product; therefore, I used this element of the ABC model to determine the overall intentions of U.K. immigrants toward acquiring credit cards. Finally, the cognition component of the ABC model refers to an individual's beliefs (Solomon, 2017). Since beliefs are subjective and influenced by a variety of factors, such as past experiences of an object and information received from outside sources, this aspect of the ABC model is of particular relevance to the present study.

The cognitive element of the ABC model extends beyond beliefs to also encompass knowledge and opinions, which are essential components informing how attitudes are shaped (Ikechukwu, Daubry, & Chijindu, 2012). The impact that knowledge and opinions have on an individual's behavior also cannot be understated, as the perceptions that result from knowledge are commonly displayed through beliefs (Ikechukwu et al., 2012). Accordingly, marketers have embraced the concept of cognition

being intertwined with attitudes by focusing marketing strategies on creating positive brand associations among consumers by influencing their values and beliefs (Ikechukwu et al., 2012). Marketers are able to establish positive brand associations among consumers through strategically placed advertisements, which have the potential to ultimately impact consumers' beliefs about a brand, such as having a favorable view of one brand and an unfavorable view of the competition's brand (Asiegbu, Powei, & Iruka, 2012). Due to the important role that cognition plays in shaping attitudes, some have argued that the primary focus of the ABC model should be on scaled descriptors designed to measure the cognitive element of the model (Asiegbu et al., 2012).

The next component of the ABC model addresses the affect aspect of an attitude, which is how an individual feel about something (Asiegbu et al., 2012). The reason marketers emphasize the attitude–object relationship when attempting to create favorable product associations in the consumer's mind is the emotional responses that individuals can have toward an object (Asiegbu et al., 2012). Researchers have identified that affect-laden events can lead individuals to have highly elevated emotional reactions, which can enhance positive or negative experiences (Asiegbu et al., 2012). The affect-laden experience that results in an enhancement of emotion may cause certain memories to be stronger than others, which can solidify an individual's favorable or unfavorable attitude toward an object (Asiegbu et al., 2012). In general, emotions are subject to numerous influencing factors, and ultimately play a critical role in the formation of cognitive beliefs (Asiegbu et al., 2012).

Marketers have further capitalized on the cognition aspect of the ABC model by devising specific strategies to manipulate the cognitive components of consumer attitudes (Ikechukwu et al., 2012). This alteration of consumers' cognition occurs in four primary ways: strengthening of existing positive beliefs, increasing the positive attributes associated with a product, creating new beliefs about the attitude object, and reinforcing existing positive beliefs about a product (Asiegbu et al., 2012). By strengthening an existing belief, marketers are able to effectively reaffirm consumer beliefs regarding the positive attributes of a product, while also decreasing negative beliefs about its attributes (Asiegbu et al., 2012). To improve the assessment of a deeply held belief about an attribute of a product or brand, marketers will adjust their means-end approach (Asiegbu et al., 2012). This adjustment of the means-end chain involves a process whereby marketers attempt to emphasize the positive aspects of the stronger attributes of their brands. In addition to highlighting the positive attributes of a brand, marketers will also attempt to add a new positive belief about an attribute to the consumer's frame of reference (Asiegbu et al., 2012). Accomplishing this goal might require a physical change in the product to give it more attributes that will solve more problems for the consumer. Finally, another strategy that marketers employ to alter consumers' cognition involves convincing the consumer that an attribute that is already viewed favorably is more relevant than it initially appeared to be (Asiegbu et al., 2012).

Marketers have also attempted to manipulate the affect component of an attitude by drawing from psychological models of behavior, specifically the concept of classical conditioning (Asiegbu et al., 2012). One of the ways classical conditioning is applied in a

consumer-oriented setting is through the use of music, which is played in an attempt to evoke an emotional response from the consumer (Asiegbu et al., 2012). As previously mentioned, affect-laden experiences can enhance reactions to stimuli, which, in turn, may result in a consumer having a more salient positive association between brand attributes and how they make the individual feel. Ultimately, the components of an attitude are of extreme interest to marketers. As explained by Asiegbu et al. (2012), marketers must have insight into consumer attitudes toward product attributes because attitudes are shaped by what the consumer believes to be true about the product being assessed. Furthermore, since consumers' behaviors are informed by their attitudes, studying consumer attitudes enables marketers to gain a better understanding of why consumers decide to purchase or not to purchase their products (Asiegbu et al., 2012).

In terms of the relevance of specific aspects of the ABC model to the relationship between credit card debt and immigrant status, recent studies using the ABC model have offered insight into consumer attitudes toward credit cards. For example, research findings have indicated a significant association between consumer attitudes toward credit card ownership and repayment behavior (Joireman, Kees, & Sprott; 2010; Norvilitis & MacLean, 2010; Rutherford & Fox, 2010; Thorne, 2010). In addition, Alwi and Kitchen (2014), in a study looking at brand image, found that cognitive and affective attitude factors were significant determinants of consumer behavior. As Asiegbu et al. (2013) explained, beliefs and attitudes significantly influence consumers' behavioral intentions related to purchasing a product, which is of special interest to market researchers who are seeking a way to predict consumer behaviors.

While the ABC model has been applied to a variety of topics, the area in which it is most commonly used appears to be marketing and consumer psychology (Alwi & Kitchen, 2014; Chen & Cheng, 2013; El-Bassiouny, 2015; Fredricksson & Andersson, 2012; Hamzah, 2014; Rocereto, Kwak, & Puzakova, 2015; Stegemann, Denize, & Miller, 2013). While both components were equally important in shaping brand image, the affective attribute appears to explain more. On the other hand, Fredriksson and Andersson (2012) found significant correlations between attitude and the behavioral component in email marketing. The ABC model is often considered a fundamental component of the consumer framework, especially because it incorporates the demographic and social factors influencing consumers in relation to credit cards.

Nature of the Study

Since the purpose of this study was to examine whether there was an association between credit card debt and the income gap among U.K. immigrants and British citizens through an analysis of data collected by the British Household Survey using the ABC model, this study is cross-sectional in nature. In accordance with the use of existing survey data, a longitudinal correlational research design should be implemented, however, the approach was deemed inappropriate for the study because of the high level of attrition of the respondents and the few responses that were available on the variables of interest for the years 1995, 2000, and 2005. Hence, the selection of a cross-sectional correlation study. A cross-sectional approach was deemed appropriate because the information used for analysis was based on specific points in time. Though the panel data is longitudinal in nature because the data was gathered from a representative sample over

a period of time to explore specific aspects of human behavior (Williams, 2007), data from longitudinal studies can be analysed cross-sectionally when the researcher is just focusing on the information collected at specific rounds, and not linking that information to data from previous or subsequent rounds (https://learning.closer.ac.uk/introduction/types-of-longitudinal-research/longitudinal-versus-cross-sectional-studies/, ass). Cross-sectional studies are an excellent way to describe populations at the moment of the study and serve a valuable role in studying relationships between the various and often wide ranging variables or types of information often collected in these studies (Laura Lee Johnson, 2012). It also offers an excellent way to describe populations at the moment of the study and to study relationships between the various and often wide-ranging variables or types of information often collected in cross-sectional studies (Johnson, 2018).

Numerical data was gathered for this study, hence, a qualitative approach is appropriate for studies that are more exploratory in nature, such as when the researcher intends to examine the constructs or concepts underlying a phenomenon (Watson, 2015). In this research, since the aim was to explore the phenomenon of interest – the relationship between consumer debt and immigrant status among U.K. immigrants and British citizens – a qualitative design was not utilized.

The dependent variable in the study was consumer debt, while the independent variables included the following demographic factors: immigrant status (U.K., non-U.K.), ethnicity, credit card, number of persons in household, and highest educational attainment.

Definitions

British Citizen: In the context of this research, a British Citizen is a person who is a citizen of the United Kingdom or its colonies and had the right of abode before the British Nationality Act, or whose parents (one or both) are citizens of the United Kingdom.

British Household Survey: A multipurpose British population survey that provides a longitudinal perspective by following the same individual sample, which focuses on households, over a period of time (Contoyannis, Jones, & Rice, 2004).

Credit debt: Also referred to as credit card debt, this refers to debt resulting from the purchase of a service or good, including purchases resulting from loans, credit lines, and credit cards (Devenney & Kenny, 2012).

Family: A family is defined by the British Panel Survey as a single person or a couple living together with or without children (Jenkins, 2010).

Household: A household is defined by the British Household Panel Survey as one person living alone, or a group of people who either share living accommodation or share one meal a day, and who have the address as their only or main residence (Jenkins, 2010).

Immigrants: In the context of this research, immigrants refers to individuals that originated from a non-European Union country or ethnicity (Indian, Mixed Indian, Pakistani, Bangladeshi, Sri Lankan, Caribbean/West Indian, Mixed Caribbean/West Indian, North African, Black African, African Asian, Chinese, Far Eastern, Turkish, Middle Eastern/Iranian) to settle in Britain.

Income gap: Can be defined as the difference in actual income present among different groups (Krelle, 1989).

Tri-component attitude model: Also known as the ABC model, this is a model in which attitudes are viewed as being formed by three aspects: an action component, a feeling and emotional component, and a knowledge component (Gledhill, 2010).

Assumptions

The assumptions of any study involve underlying conditions that are somewhat out of the researcher's control and not only inform the overall research but are integral to the relevance of the study (Simon, 2011). My main assumption in this study was that the British Household Panel Survey (BHPS) dataset used for analysis is both reliable and valid. This assumption is valid because the objective nature of data collection ensures reliability and validity of the dataset (Williams, 2007), which the longitudinal survey design will have ensured in the case of the British Household Panel Survey (Lambert, 2006). Since all participants gave consent to the collection of their data, I assumed that the answers they provided were valid and reliable. I also assumed that, because the survey implemented a stratified random sampling method to identify initial participants, there were no significant biases in the individuals giving consent, and, therefore, the dataset was not biased toward certain demographics (Lambert, 2006).

Scope and Delimitations

The scope of the analysis undertaken in this research was delimitated to immigrants and native citizens in the United Kingdom who participated in the BHPS in 1991. Since the design of the BHPS was intended to represent private households within

Great Britain south of the Caledonian Canal, the scope of this study was further delimitated to individuals living in those areas (Lynn, 2006). The study was further delimitated to residents who were over the age of 18 and owned a credit card. Since having credit debt is not the same as having access to such credit, the analysis in this study looked specifically at variables related to credit debt. Residents who were younger than 18 years old and/or did not live within Great Britain south of the Caledonian Canal were excluded from the study.

Limitations

Due to the use of existing survey data for the analysis, the researcher did not have control over the data collected, which limited the study to the data available from the source. For example, prior to the financial crisis in 2008, debt and financial data related to debt were only collected in 1996, 2001, and 2006; therefore, the findings from this study may have limited ability to be generalized to the current financial situation in the United Kingdom. A significant limitation related to this is that credit debt could only be measured in this study's analysis as the actual debt incurred by an individual, and, therefore, no data was collected for analysis of the ability to incur credit debt, such as approved credit card limits. Obtaining information on an individual's access to credit debt would have been difficult as individuals may not know their credit card spending limits or the theoretical amount of credit they could obtain from their bank; the collection of such data may also be ethically questionable.

Significance of the Study

Significance to Theory

The significance of this study lies in the fact that the issuing of credit debt has been linked to increased bankruptcy claims, adverse credit histories, and difficulties obtaining employment among immigrant consumers (Ha & Krishnan, 2012; Sprenger & Stavins, 2010; Yang & Lester, 2014). The mismanagement of credit debts increases the damage caused to an immigrant consumer's life as well as on the wealth management of the lending institutions (Soll, Keeney, & Larrick, 2013; Dwyer, 2018; Malhotra & Lu, 2014). Understanding the significant factors that contribute to the increased level of household debt among U.K. immigrants could lead to better formulation and implementation of strategies that can address such situations.

Significance to Practice

The findings of this study are also relevant and timely to the review of the financial services and banking industry conducted by the Financial Conduct Authority of the United Kingdom, in light of the increase in credit debt that has been occurring for the past few years (Painter, 2014). In addition, findings from this study may aid in identifying individuals particularly vulnerable to credit debt, which would facilitate improvements in policies to protect credit card users and might provide information that enables financial institutions to better monitor their customers for credit card misuse (Alanis & Cui, 2013).

Significance to Social Change

The findings of this study may assist in bringing about positive social change by providing specific information to banks and lending institutions on how they can manage the credit lines of the specific groups studied. There are numerous studies that have linked credit debt to certain demographics; however, until now, there has been insufficient research on immigrants as a demographic in relation to credit debt. Most research on immigrants has studied their wealth overall, but not specifically at immigrant credit debt (Painter, 2014; Painter, 2013; Painter, Holmes, & Bateman, 2015; Painter & Qian, 2016). Additionally, no previous researcher has attempted to apply the ABC model of attitudes to this context. Knowing which ethnic groups exhibit certain behaviors in terms of paying off debts and excessive spending using consumer credit provides banks and lending institutions with valuable insights on how they can manage the credit lines of these specific groups (Painter, 2014). Finally, the findings of this study have expanded the body of knowledge about the association between credit debt and immigrant status in the United Kingdom, which has been the subject of growing interest among researchers in the field of finance and economics.

Summary and Transition

The discussion in this chapter consisted of a succinct introduction to the present study, which included pertinent information regarding the problem informing the research objective. As previously mentioned, the purpose of this quantitative cross-sectional correlational study was to examine whether there was an association between credit card debt and the income gap among U.K. immigrants and British citizens through

an analysis of BHPSdata, using the ABC model. This research is important because there is limited data on how credit debt is incurred by immigrants in comparison to native citizens. To effectively fulfill the research objective, the research design accounted for specific variables that are known to be predictors of credit debt, including income, immigrant status, and education. The following chapter will present a review of the relevant literature on credit card spending behaviors and the application of the ABC theoretical model.

Chapter 2: Literature Review

Since the global credit crisis of 2008, credit has become a worldwide concern. The U.K. Survey of Consumer Finance reported that, in order to pay for household expenses and finance education fees of children, approximately 27% of households carry credit debts and other loans (Telyukova, 2013). After the global credit crisis of 2008, the population of the United Kingdom had $2,310 billion in personal debt (Harrison & Gray, 2010), where the average credit debt per consumer was approximately $6,400 (Federal Reserve, 2013). In 2011, the average household debt within the United Kingdom reached a record high of £1.6 billion and was predicted to increase to £2.1 billion by 2015. The result has been large increases in the credit debt-to-income ratio, which, in 2009, was approximately 171%, among the highest rates across the globe (Patel, Balmer, & Pleasence, 2012). In this context, the wealth gap that exists between households of U.K. immigrants and British citizens, show the extreme personal debt on a national scale (Federal Reserve, 2013). The problem addressed in this study was the role of consumer debt (with focus on credit debt) in creating an income gap between U.K. immigrants and British citizens. In particular, further research was required to explore the relationship between credit debt and immigrant status among U.K. immigrants and British citizens.

There have been numerous studies linking credit debt to certain demographics. However, immigrants appear to be a demographic that has not been explored to a great extent. Most of the research on immigrants examines their wealth as a whole but not specifically at immigrant credit debt (Painter, 2014; Painter, 2013; Painter, Holmes, & Bateman, 2015; Painter & Qian, 2016). Additionally, no researcher has attempted to

apply the ABC model to this context. The purpose of this quantitative correlational study was to examine the link between consumer debt (with focus on credit debt) and immigrant status among U.K. immigrants and British citizens. My goal for the study was to give banks and other financial institutions that provide loans insight on the consumer and credit card habits of U.K. immigrants from different ethnic groups so that they can better accommodate their needs. Understanding consumers' debt and credit card usage can help policy makers develop efficient solutions that target the negative credit card balances that these individuals are burdened with. By identifying the relationship between credit debt and immigrant status, researchers can obtain insight on the role played by an individual's ethnic group in the rate of home equity decline as well as the overall net wealth of a household, especially following the 2008 financial crisis (Dwyer (2018), Malhotra & Lu, 2014).

A working knowledge of the essential factors that impact the rise in debt levels of immigrant households in the U.K. could help policy makers and government officials develop and execute better strategies for countering this effect. The results of this study may also be relevant to the Financial Conduct Authority of the United Kingdom's recent review of the financial institutions and banking services, in which it was found that an increased level of credit debt had been emerging for the past few years (Painter, 2014). Moreover, understanding which behaviors are associated with which ethnicities in regard to repaying credit debts and unnecessary credit cards allows banks and other financial lending institutions to learn how to better assist specific groups with their credit transactions (Painter, 2014). Finally, the findings of this study contribute to the existing

scholarly literature on the relationship between consumer debt and immigrant status in the United Kingdom, which researchers in the area of finance and socioeconomics have paid special attention to in the last decade.

Literature Search Strategy

To conduct the literature search, I used EBSCOHost, Google Scholar, Wiley Online Library, JStor, ProQuest, and Taylor & Francis databases, and search terms including: *credit card, debt, immigration, ABC model of attitudes, tri-component model*, *race,* and *immigrants.* Using these keywords, both individually and in combinations, the databases generated related articles. In total, I reviewed 77 articles, prioritizing peer-reviewed sources. Of those 77 articles, 96.1% were published after 2012 and 2.9% were published before 2012. In the following sections, I will first discuss the theoretical framework; then, I will group relevant studies in categories progressing as follows: social/psychological factors, age, income/socioeconomic status, education/financial literacy, immigrants, and immigration.

Theoretical Foundation

The ABC model of attitudes has been used by researchers to assess consumer attitudes and their relationship to consumer behavior by examining how a consumer processes information that relates to their choices. The ABC model of attitudes was originally proposed by Solomon (2017), who argued that a person's attitude is a direct result of a hierarchy of effects that involve the following components: Affect, behavior, and beliefs. In this context, an attitude is a response to a former stimulus or objects related to that attitude (Breckler, 1984; Solomon, 2017). Affect, behavior, and cognition

are three classes of response to that stimulus (Breckler, 1984). Affect refers to an emotional reaction to, or overall feelings about, a brand or product from the perspective of the consumer (Breckler, 1984). These evaluations can derive from personality traits, motives, or social norms (Asiegbu, Powei, & Iruka, 2013). Behavior entails intentions, overt actions, and verbal comments in relation to the object (Breckler, 1984). Demarque, Apostolidis, and Joule (2013) argued that behavior is the product of the interaction between affect and the cognitive component, which takes the form of beliefs, knowledge, structures, perceptual responses, and thoughts. Individuals establish these cognitions through direct engagement with the stimulus to which the attitude relates and information from other persons they come into contact with in their lives (Breckler, 1984; Asiegbu et al., 2013).

Researchers have applied the ABC model to a variety of fields and topics. In recent years, it has been used to study attitudes toward online shopping (Al-Nasser, Yusoff, Islam, & AlNasser, 2014), interdisciplinary learning in the sciences and engineering (Gero, 2016; Gero, 2013), physical education (Yimer, 2014), and television broadcasting (Tabu, 2014). Yimer (2014) discovered that students' favorable attitudes toward physical education could be attributed to their positive affect, cognition, and behavior toward physical education. Bang and Baker (2013) found that female and male students from co-educational schools had noticeably higher achievements and positive attitudes concerning science. Tabu (2014) used the ABC model to evaluate consumer attitudes toward the digital transition of television broadcasting systems in Nairobi. The study established that the positive feelings and emotions that consumers had toward digital technologies often

correlated with their positive attitudes toward digital television technology. Moreover, their favorable attitudes also correlated to their intention to switch to digital television.

While the ABC model has been applied to a variety of topics, the most common area in which it is used appears to be marketing and consumer psychology (Alwi & Kitchen, 2014; Chen & Cheng, 2013; El-Bassiouny, 2015; Fredricksson & Andersson, 2012; Hamzah, 2014; Rocereto et al., 2015; Stegemann et al., 2013). Alwi and Kitchen (2014) found that cognitive and affective attitude factors were the most significant factors determining consumer attitudes in relation to brand image. While both components were equally important in shaping brand image, the affective attribute had greater explanatory power. In relation to email marketing, Fredriksson and Andersson (2012) found significant correlations between attitude and the behavioral component, where more negative behavior of the consumer was related to more negative attitudes concerning email advertising campaigns. On the topic of online marketing, Chih, Dwyer, Hsu, and Huang (2013) used the ABC model to show that platform- and customer-based motivations influenced perceived positive electronic word of mouth credibility, which subsequently affected customers' purchasing behavior. Moreover, Chih et al. (2013) discovered that product attitudes and website attitudes mediated the impacts of perceived positive electronic word of mouth credibility on consumption behaviors.

sing the ABC model as a theoretical basis, researchers have provided an empirical synthesis of evidence related to consumer attitudes, which provides useful insights into the model (Asiegbu et al., 2013). The findings of these researchers suggest that individuals' values and beliefs are often shaped by their environments, such as family,

organization, and community environments. This finding is of special interest to marketers, since consumers' buying behavior is often influenced by product and brand images (Asiegbu et al., 2013). In another study, Pande and Soodan (2015) found evidence of consumer attitudes, beliefs, and subjective norms influencing purchasing behaviors. They further found that beliefs played a role in developing positive perceptions related to a product's quality, its delivery, price, and availability. These beliefs consequently created positive behaviors related to purchase intention. A common perspective that these studies on consumerism have revealed concerns how attitude, affects, and cognitions influence behaviors, rather than how affects, behaviors, and cognitions influence attitudes (Pande & Soodan, 2015).

Ismail, Amin, Shayeri, and Hashim (2014) found a positive correlation between consumer attitudes toward using credit cards and credit debt. Credit cards are one of the strongest mediators for consumption and have been proven to trigger different affects, behaviors, and cognitions in comparison to cash or checks (Keese, 2012a; Khare, Khare, & Singh, 2012; Oksanen, Aaltonen, & Rantala, 2015). Therefore, the ABC model, which examines in depth the three main components that influence consumer attitudes, was deemed to be helpful in determining whether immigrant status plays a role in credit debt for both citizens and immigrants. In the present study, the ABC model also helped to identify the affective, behavioral, and cognitive components associated with certain ethnicities.

Review of Related Literature

n the present study I examined consumption through the use of credit cards and credit debt. The recent literature on financial wellbeing and financial habits was of particular interest when examining the predictors of wealth and debt, especially social factors, psychological factors, age, income, education/financial literacy, and immigrant status.

Social Factors Affecting Credit Debt

Although not many sociology researchers have based their research and analysis on the ABC model, they have drawn on social, psychological, and personality attributes that are similar to the three primary components of the model. For example, in a study of 428 students investigating the influence of social networks on credit card over-spending among young adult consumers, Sotiropoulos and D'Astous (2012) found that social norms had a strong influence on credit card usage. The researchers' findings also revealed that, in regard to social norms, individuals were more likely to conform to the norms and expectations of those who were more strongly connected to them, with social networks greatly impacting the way individuals managed their credit debt (Sotiropoulos & D'Astous, 2012).

The term social norms encompass both descriptive (how things are) or prescriptive (how things should be) concepts, and relates to the rules agreed upon by a group of people, which may guide or limit how an individual behaves in social situations. Social norms have also been categorized based on people's level of awareness of their influence, which can involve explicit and implicit understandings. Explicit understandings are based

on expectations that an individual has and is aware of, while implicit understandings involve expectations that arise without an individual's awareness (Sotiropoulos & D'Astous, 2012).

Many researchers have asserted that people who use credit to purchase goods may be doing so to increase their human or social capital (Dean, 2013; Yang & Lester, 2014). The tendency for individuals to compare themselves to those within their social circle and demonstrate their power and status through money and possessions has been found to increase their likelihood of using a credit card (Kamleitner, Hoelzl, & Kirchler, 2013). Kennedy (2013) also mentioned this subject, but referred to it as subjective norms, and agreed with Kamlietner, Hoelzl, and Kirchle (2013) that people often evaluate themselves based on those who do not reflect their own economic status. These researchers further argued that individuals tend to compare themselves to those of a higher financial status, triggering a persistent desire to possess items and live a life beyond their means. In this context, credit cards create a problem in that The problem only became heightened with credit cards as credit cards allowedthey enable people who cannot afford to do so to attempt to keep up with their friends. Kamleitner et al. (2013) asserted that people may overspend on credit cards because they believe that they should be spending a certain minimum amount when they consume in social situations based on the perceived expectations of others around them. At the same time, if debt is the norm in a particular social circle, this fact could alleviate an individual's concern about being in debt (Kamleitner et al., 2013). This suggests that prescriptive norms guide individuals toward a certain type of behavior and increase the effect of descriptive norms if they reflect

prescriptive norms, or reduce the effect if the opposite is the case (Sotiropoulos & D'Astous, 2012).

Overall, the literature on the social effects on financial habits revealed that a person's social circle can have negative effects on their spending habits (Dean et al., 2013; Kamleitner et al., 2013; Sotiropoulos & D'Astous, 2012; Yang & Lester, 2014). When relating the evidence to the present study, differences in the credit debt of immigrants and native citizens may be explained by examining the social connections and affiliations that can affect a consumer's attitude. Immigrants may have different social environments and influences to native citizens. Moreover, immigrants or native citizens of different ethnicities may associate with different social circles that might have different influences on their attitudes toward credit debt.

Psychological Factors Affecting Credit Debt

A consumer is a psychological being who has desires, personality, and attitudes. Psychological factors often affect the attitudes and behaviors of consumers, and marketers frequently try to capitalize on these influences (Asiegbu et al., 2012). Some researchers have explored consumer spending and found that purchasing behavior correlates with how the spender views money. Individuals may spend for personal power, prestige, image, or to satisfy other materialistic desires.

On the other hand, some consumer behavior is related to anxiety and distrust (Dean et al., 2013; Khare et al., 2012; Sotiropoulos & D'Astous, 2013;). Credit cards have the power to help spenders achieve a certain lifestyle, and to many consumers they symbolize global reach, a comfortable lifestyle, and a sense of achievement (Khare et al., 2012).

Furthermore, many credit card holders believe that the credit limit that their card has is predictive or representative of their future income. In fact, surveys have shown that when a person's credit limit increases, it usually leads to them spending more and using their credit card more often, and that many users calculate their payments based on their credit limit instead of their income (Kamleitner et al., 2012; Dwyer, 2018; Dywer et al., 2014).

Materialism. Materialism has been identified as another predictor of credit debt. One study found that materialistic individuals tend to seek a certain status or lifestyle and believed that purchasing material possessions will lead them to that goal (Yam et al., 2012). The study by Peltier, Pomirleanu, Endres, and Markos (2013) found that displaying a specific social image through material possessions and purchasing behavior strongly correlated to an increase in credit card use and, often, debt. Their findings also coincided with evidence showing how consumers with high levels of materialism had more favorable attitudes toward borrowing money and were more prone to accruing debt because of this. However, Kamlietner et al. (2012) also showed that materialism is often mediated by issues of self-control, such as impulsivity and difficulty delaying gratification.

Impulsive buying. Self-control has been shown to be an influential variable in terms of determining debt (Mittal & Griskevicius, 2014; Oksanen et al., 2015; Russell, Whelan, & Maitre, 2013; Sotiropoulos & D'Astous, 2013; Yang & Lester, 2014). Impulsive buying is an unintended, less deliberate decision. Impulsive buyers desire immediate actions and often give little consideration to long-term consequences (Peltier et al., 2013). Credit cards magnify this type of behavior as their ease of access allows

consumers the ability to buy products immediately and delay the financial responsibilities (Peltier et al., 2013). Similarly, Soritopoulos and D'Astous (2013) found that credit cards' ease of access and convenience correlated with individuals' increased willingness to use credit cards when purchasing goods and services in comparison to case. Additionally, it has been found that the more accustomed an individual is to purchasing goods and services with credit, the more likely they are to use credit habitually. Research by Oksanen et al. (2015) and Keese (2012a) found men to be more impulsive than women, as well as more debt-ridden. Furthermore, Caputo (2012) found that those with a greater degree of external control were more likely to experience intermittent or chronic debt than those with a greater sense of internal control. Finally, Kamleitner et al. (2012) associated impulsivity and the inability to delay gratification with present orientation, myopia, and a strong disregard for future events; evidence showed that these factors also increased credit use. In contrast, another study showed that those who prioritized paying their expenses, even if it meant compromising certain desires, had a lower probability of debt problems (Russell et al., 2013).

Compulsive buying. A related issue to impulsive buying is compulsive buying, which entails engaging in repetitive or ritualistic purchasing as a response to negative feelings or events (Sotiropoulos & D'Astous, 2013). In the study by Sotiropoulos and D'Astous (2013) on attitudinal and social determinants of credit debt, the authors defined compulsive buying as an individual not being able to control their consumption habits, and associated it with irrational decision-making. Compulsivity in the context of buying can potentially have a negative impact due to the psychological, emotional, and

interpersonal consequences of debt (Peltier et al., 2013). Peltier et al. (2013) found that the habit generally provides short-term satisfaction, but often becomes difficult to stop and can lead to harmful consequences. Similarly, Sotiropoulos and D'Astous (2013) found that those who had debt had a more positive outlook toward credit and believed that it was more advantageous to purchase on credit immediately than to wait for the product, even if that meant being able to purchase it at a lower price. It has been found that banks often seek customers who are more inclined to short-term rewards because they are the customers most likely to accrue high interest from debt (Harrison & Gray, 2010). Peltier et al. (2013) also found that compulsive buyers had a greater likelihood of holding a higher number of credit cards and exhibit less control when using those cards.

Certain traits are known to predict compulsive buying, such as low self-esteem, materialism, narcissism, depression, anxiety, and stress (Khare et al., 2012; Nga & Yeoh, 2015; Yang & Lester, 2014). Joireman, Kees, and Sprott (2010) examined how compulsive buying tendencies influenced credit debt; their survey data revealed that compulsive buyers tended to perceive money as representative of power and prestige. Additionally, the authors linked compulsive buying tendencies to lower future time orientation and a reduced tendency to consider future consequences. They further found that those who had higher levels of compulsive buying tendencies reported more credit debt, and that those compulsive tendencies often mediated the connection between an individual's consideration of future consequences and their credit debt. Overall, compulsive buying has been found to be a strong predictor of credit debt in individuals motivated by instant gratification.

Although both impulsive and compulsive consumption behaviors concern the inability to control consumer desires, compulsive buying entails a repetitive loss of control, while impulsive buying is more situational. Furthermore, impulsive buying is sparked by an external stimulus, such as marketing, while compulsive spending arises due to more stable characteristic traits. Therefore, compulsive buying is a repetitive and ongoing need to buy, while impulsive buying is a more spontaneous act (Peltier et al., 2013).

Locus of control. Closely related to self-control is the locus of control (LOC), which is the tendency to view life's outcomes as a result of rewards and punishments. Buyers with an internal LOC believe they control their fate, behaviors, rewards, and punishments (Kamlietner et al., 2012). Hence, these individuals are more proactive in securing desired outcomes, accept more accountability for their behaviors, and often take risk avoidance strategies into account (Peltier at al., 2013). Contrastingly, those with an external LOC view their outcomes and behaviors as something they cannot control. Therefore, they tend to manage their lives by employing risk-accepting strategies and controlling external factors (Lin & Shih, 2012). The psychological concept of LOC has been be applied to credit card and financial behaviors. Research has found that individuals with external LOC tend to have more positive views of credit and money, to be more reckless in regard to managing funds, to act compulsively, and to have higher credit debt (Peltier et al., 2013).

Sotiropoulos and D'Astous (2013) also explored controllability in the context of credit cards, but focused on how it related to self-efficacy. The authors defined

controllability as the degree to which people believe that they have control over their behavior. Self-efficacy and controllability can also both be predictors of debt. Credit card users with debt tend to have a lower sense of self-efficacy and feel that they were less in control of their credit card debt. Moreover, people who have more confidence in their ability to manage their own finances and follow through with a financial plan when managing their expenses tend to accrue less debt.

Optimism and pessimism. Optimism and pessimism have also been shown to affect credit use. One study found that optimistic people borrowed approximately double the amount that pessimistic people borrowed; furthermore, the optimists tended to conclude that it would take them less time to pay back their credit debts and, consequently, had higher credit debts (Kamlietner et al., 2012). However, the research on optimism and pessimism affecting credit debt is fairly limited. Kamleitner et al. (2012) suggested that, as with many personality and psychological traits, there are multiple levels and forms of optimism that can have different effects on credit card usage. For example, Kennedy (2013) specified unrealistic optimism as a stimulus of reckless credit card use, and carried out a study to predict credit debt among college students. Of the 143 participants that were surveyed on attitudes, subjective norms, perceived behavioral control, behavioral intentions, financial literacy, and demographic information, 73% reported that they could pay off their credit debt faster than the average college student, whereas only 6% believed it would take them more time than the average college student to pay off their credit debt, and 21% believed it would take them the same amount of

time. Similarly, Norvilitis (2014) related unrealistic optimism to lower levels of financial literacy, which the researcher also associated with credit debt.

Risk-seeking. Risk-seeking is another personality trait that has been identified as often leading to increased credit card use (Dean et al., 2013; Kamleitner et al., 2012; Oksanen et al., 2015; Peltier et al., 2013). For example, Kamleitner et al. (2012) found that individuals who desired high sensations tended to risk more and demonstrated more problematic financial behaviors than low sensation seekers. The more cautious a consumer was, the lower their debt tended to be. Similarly, Oksanen et al. (2015) found that impulsivity and risky health behavior correlated with risky credit card behaviors, and that men were more prone to risky financial behaviors than women.

Mental health. It has been found that mental and psychological state affect credit debt, and credit debt can also affect psychological wellbeing. Kamleitner et al. (2012) and Sweet, Nandi, Adam, and McDade (2013) found that those with higher credit debt reported higher levels of anxiety and depression. Additionally, their study found that 23% of debtors suffered from mental illnesses compared to 8% of non-debtors. It is not just actual level of debt that predicts negative psychological health, but the perception of and worry about the existing and future debt level. Indeed, the results of the study by Richardson, Elliot, and Roberts (2013) showed that debt increased the risk of depression, suicide completion or attempt, mental disorder, neurotic disorders, drug and/or alcohol abuse, and psychotic disorders. Research by Berger, Collins, and Cuesta (2013) focused specifically on the link between debt and adult depression, and found that debt accumulation was associated with greater depressive symptoms among adults in the

United States; short-term debt in particular influenced most of the depressive symptoms, whereas mid-term and long-term debt showed no statistically significant results. McCormack (2014) found that financial education can help reduce stress in those with credit debt. Another mediating factor between debt and psychological wellbeing is optimism and pessimism. Shen, Sam, and Jones (2014) found that both pessimism and optimism led to a decrease in debt stress; while the results for optimism results were expected, the pessimism results were not. However, Shen et al. (2014) attributed this result to the fact that pessimistic individuals are generally better prepared for suspected outcomes. An individual who assumes their financial situation will get worse in the future may take additional steps to increase their income, for instance by taking a second job, or to decrease their expenses by avoiding spending.

The literature on the psychological factors influencing credit debt has reported materialism (Kamleitner et al., 2012; Peltier et al., 2013; Yam et al., 2012), self-control (Mittal & Griskevicius, 2014; Kamleitner et al., 2012; Keese, 2012b; Oksanen et al., 2015; Russell et al., 2013; Sotiropoulos & D'Astous, 2013; Yang & Lester, 2014), LOC (Kamlietner et al., 2012; Lin & Shih, 2012, Peltier et al., 2013), compulsivity/impulsivity (Harrison & Gray, 2010; Joireman et al., 2010; Peltier et al., 2013; Sotiropoulos & D'Astous, 2013), optimism/pessimism (Kamlietner et al., 2012; Kennedy, 2013; Norvilitis, 2014), and risk-taking (Dean et al., 2013; Kamleitner et al., 2012; Oksanen et al., 2015; Peltier et al., 2013) as the strongest predictors of credit debt. However, the studies rarely linked these psychological factors to a wide range of demographics, with immigrants and immigrant status being especially rare. Therefore, the present study will

help to promote research linking these issues. If a difference exists between the credit debt of immigrants and native citizens, it may imply that immigrants and immigrant status moderate the relationship between psychological factors and credit debt.

Young Adults and Credit Debt

Researchers have also examined in depth how a consumer's demographic background and situation affects their financial situation and credit card use. The demographic that has received the greatest amount of attention is young adults, where younger credit card users have been found to accumulate more debt than older users (Dean et al., 2013; Jiang & Dunn, 2013; Kamleitner et al., 2012; Oksanen et al., 2015; Patel et al., 2012; Russell et al., 2013; Sotiropoulos & D'Astous, 2012; Sotiropoulos & D'Astous, 2013; Yang & Lester, 2014). Young adults have been found to have larger amounts of public and private debt (Jiang & Dunn, 2013) and be more likely to experience short-term and intermittent debt (Caputo, 2012). Younger adults may have higher levels of debt because lenders tend to target them more than older adults. This conclusion is supported by research by Harrison and Gray (2010), who examined the different methods by which banks and other financial institutions profile consumers. After reviewing academic works related to marketing, finance, and management, they found that banks often used research methods to target the consumers they believed would be the most profitable or were financially vulnerable. These methods included buying personal credit card information, using direct mail campaigns, Internet and email communications, and focusing on those in financial need and thus more prone to taking on a loan or credit card to solve financial issues quickly (Peltier et al., 2013). The study

further revealed that younger credit card users often fit these criteria; they were more likely to collect a number of credit sources and accrue larger debts to achieve a certain lifestyle (Harrison & Gray, 2010). Using a credit card allows younger consumers to attain a sense of fulfillment (Houle, 2014; Khare et al., 2012). On the other hand, older adults tend to have more wealth and fewer needs (Dean et al., 2013). Due to this evidence and the research that shows young people have less steady income than other demographics, they are considered more likely to have chronic debt (Oksanen et al., 2015). Overall, it can be concluded that young adult consumers tend to be the most susceptible to credit debt because of their lack of financial knowledge, heightened sensitivity to social influence, and being primary targets of banks and credit lenders.

Students and Credit Debt

Students are particularly vulnerable to accumulating credit debt. Peltier et al. (2013) looked at both the psychological and social factors that impact credit use in college students. They interviewed 40 undergraduate and graduate students and conducted three focus groups that consisted of general discussions about credit card usage. The researchers found that 84% of students owned a credit card, averaging to 4.6% credit cards per student. In addition, 40% confessed that they charged payments to their card with the knowledge that they did not have the funds to repay it, and 43% said that they endured heightened levels of anxiety because of their credit card balance (Peltier et al., 2013). Moreover, college students often lacked the financial literacy necessary to make informed financial decisions; overwhelming credit card balances led to emotional stress, low self-esteem, decreased confidence in managing financial assets, and overall

weakened psychological well-being in graduates (Peltier et al., 2013). The extent of the problem is such that the Obama administration decided to enact the Credit Card Accountability, Responsibility, and Disclosure Act of 2009 (CARD). The Act restricts organizations from giving credit to students under 21 years of age unless the student has a co-signer or has proof that they can afford the repayments (Henegar, Archuleta, Grable, Britt, Anderson & Dale, 2013). It also limits companies from offering free incentives as a part of college marketing campaigns, prohibits credit institutions from revealing student contact details for marketing purposes, and orders release from contracts or agreements relating to credit card marketing (Peltier et al., 2013).

GLeaving home for college initially reduces a student's social network; to function in this new social context, they must create new social connections. Initiating and maintaining these ties will often lead students to practice impulsive and risky financial behavior, such as excessive spending, to be accepted and accumulate social capital at college (Peltier et al., 2013; Sotiropoulos & D'Astous, 2013). One study found that students used 30% of their income to pay off their credit debt compared to the suggested 10% (Hancock, Jorgensen & Swanson, 2012). The study by Sotiropoulos and D'Astous (2013) found that although students entered college with anti-debt attitudes, those that eventually acquired credit debt developed more positive attitudes toward debt than those who did not; the university context socialized students to become more liberal in their debt attitudes. This study provided evidence that debt attitudes can transition as students mature. Peltier et al. (2013) referred to this process as consumer socialization. This occurs when children and teens acquire knowledge and attitudes to navigate through the

marketplace. Peltier et al. (2013) found that younger consumers are highly influenced by others, by observing their consumer behaviors. Furthermore, younger spenders, more so than other demographics, are prone to the influence of others, especially if they are students. However, young consumers with positive perceptions of credit debt have been found to often overspend and experience financial and emotional difficulties (Sotiropoulos & D'Astous, 2012). Sotiropoulos and D'Astous (2012; 2013) revealed that young spenders' strong likelihood of over-spending reflected their perceptions of what their social circle valued; the more friends they had who were using credit cards impulsively, the greater the chance that they would do the same.

However, Sotiropoulos and D'Astous (2012) also found that students had a lower tendency to carry credit debt when they had more social support from their families. Parental involvement can thus be considered essential for preparing students to use credit cards while at college. Students in the United States have reported receiving most of their financial knowledge from their parents, much more than at school, from friends, or the media (Kamleitner et al., 2012). Students whose parents often use credit cards have a higher chance of developing favorable attitudes toward credit and credit cards (Peltier et al., 2013). Parental influence also translates into behaviors. For example, Kamlietner et al. (2012) found that explicit parental behavior and mentoring of financial skills correlated with lower credit debt in students. On the other hand, a different study found that those students whose parents had mishandled credit debt relied on credit cards less often than those who observed positive spending habits (Peltier et al., 2013). Furthermore, another study found that students were 2.8 times more likely to have credit

debt and 2.1 times more likely to have two or more credit cards when their parents had fought about finances (Hancock et al., 2012). Student credit debt was particularly large when parents avoided talking about finances altogether. Furthermore, a stdy by Kamlietner et al. (2012) showed that, if parents used money as a reward and immediate spending was allowed, the possibility for impulsive credit card use increased in students. Alkhiary (2015) found that the parenting approach that was the most effective and efficient for teaching financial management is "coaching." This teaches a sense of responsibility for managing financial resources and uses words such as, "little tips", "motivation", and "responsibility". Moreover, the researcher identified three strategies used by parents that best helped to increase students' financial decision-making: equally shared decision-making and management, distinct division of financial responsibilities, and divergent methods. Therefore, positive and frequent parental guidance in all stages of the consumer process is correlated with lower credit debt (Peltier et al., 2013).

The findings about students and credit cards were especially enlightening to the present study, as new college students and immigrants are often in the same state of mind when it comes to credit card usage. Both demographics have low levels of financial knowledge and use social cues and experiences to adjust to their new situations (Painter & Qian, 2016; Peltier et al., 2013; Sotiropoulos & D'Astous, 2013). Therefore, the results from the present study may reflect much of the literature concerning the young adult demographic.

Income and Credit Debt

Income is another demographic factor that researchers have often associated with credit debt. This association is based upon research findings which have indicated that individuals with low socioeconomic status are at greater risk of being in chronic debt due to higher interest rates on their credit loans (Oksanen et al., 2015). Kamleitner et al., (2012) argued that this happens in part because income level is positively related to responsible financial organization, such as paying bills in a timely manner and saving money. Those with lower income have also been found to be most likely to be turned down in credit applications. However, Naerum and Vernekohl (2012) found that individuals with higher income and wealth, with the exception of those in the highest income bracket, did not prioritize teaching thrift to their children. As such, the relationship between credit card usage and income is curvilinear in many cases.

Income level also affects what families use credit for. For example, the results of the study by Kamleitner et al. (2012) showed that lower income families tend to rely on credit cards to pay for basic living necessities and maintain a stable lifestyle. In contrast, higher-income families use credit cards to improve their lifestyle. Shefrin and Nicols (2014) found similar results. They investigated the use of quick and frugal heuristics to help identify consumers' financial habits when using credit cards to participate in spending and borrowing, and found that the higher the individual's income, the greater the likelihood of them using different cards for different reasons. Specifically, those with higher incomes were more likely to use their credit card for both everyday purchases and emergency or big-ticket items. Overall, Shefrin and Nicols (2014) concluded that middle-

income consumers have a higher tendency to pay their credit card balances than lower-income consumers. Research has also showed that income affects the type of credit used. Higher income brackets tend to use credit with lower interest rates, while middle- and low-income brackets use higher interest credit cards; younger families with dependent children in particular tend to fall into this category (Kamleitner et al., 2012).

While some researchers have provided evidence of income being positively correlated with credit debt (Oksanen et al., 2015; Russell et al., 2013; Drentea & Reynolds, 2012; Kamleitner et al., 2012), the findings of Dean et al. (2013) showed otherwise. They examined the effect of negative credit card habits on other forms of credit debt. Through the use of random digit dialing and convenience sampling, Dean et al. (2013) found that a respondent's income level was unrelated to the presence of credit card, installment, or personal loan debt. The researchers suggested that, although individuals were in receipt of more income, this did not necessarily mean that they were paying off their current debt; indeed, sometimes they were accumulating more. Moreover, Dean et al.'s (2013) findings demonstrated that, like the studies on young adult debt, people are more concerned with maintaining a desired lifestyle than paying off debts. This can be damaging, as Dean et al. (2013) found that negative credit card behaviors were positively correlated to respondents having multiple types of debt, such as automobile, personal loan, and installment debt. Contrastingly, respondents who had no credit card debt were more likely to report not having other forms of debt.

Oksanen et al. (2015) examined the socio-economic predictors of debt problems in Finland using the Risk Factors of Crime in Finland (RFCF) dataset, a nationally

representative, stratified random sample of Finnish residents. The study generated mixed results; while the researchers found evidence linking low income and low socioeconomic status to higher credit debt, they also emphasized that poverty and debt are different issues. They found that income only anticipated greater levels of public debt and did not relate to private debt. Additionally, individuals with high incomes were also found to be more susceptible to poor financial decisions; this was often due to being presented with the opportunities afforded by a consumer society, which can lead any individual to become indebted. Finally, those belonging to a higher income bracket were found to have a higher likelihood of accruing debt and a higher demand for debt (Oksanen et al., 2015; Keese, 2012b). There is an ongoing debate in the literature about whether income can predict credit debt. Evidence suggests that income may be a indicator, but not a conclusive determinant of whether an individual or household holds a specific level of debt.

Education/Financial Literacy and Credit Debt

Credit card users often have higher levels of education than non-users (Kamleitner et al., 2012). Nonetheless, lower-educated individuals are known to be more likely to become victims of economic marginalization, have lower cognitive abilities, and more prone to have self-control issues and make financial mistakes (Dean et al., 2013; Klapper, Lusardi, & Panos, 2012; Oksanen et al., 2015; Painter & Qian, 2016; Russell et al., 2013; Yang & Lester, 2014). Sotiropoulos and D'Astous (2012) also associated lower levels of education with higher credit debt.

Specifically, a lack of financial knowledge or financial education has been associated with poor credit and negative credit card behaviors. Before the passage of CARD, financial institutions, such as banks and credit card companies, had begun to offer financial tools online because of the high demand for consumer financial education (Shefrin & Nicols, 2013). Alkhiary (2015) argued that it is essential to establish training courses in financial literacy and to equip consumers with vital tools for making informed decisions in regard to spending, saving, and debt repayment. In relation to the ABC model, Alkhiary (2015) explained that having a financial goal, a concept taught in financial literacy, is an important factor that affects and influences attitudes toward savings behavior. Financial goals come in two forms. First, are goals associated with a motivational system addressing responsibilities and security, which affects savings intentions and behavior. Second, are goals that increase the effectiveness of public messages that influence either promotion- or prevention-focused behavior (Alkhiary, 2015).

Individuals with lower levels of financial literacy are known to be more prone to making mistakes with general household finances. In contrast, those who engage in positive financial habits, such as paying credit card bills in a timely manner and comparing prices for more expensive products, tend to be both more financially literate and more satisfied (Dean et al., 2013; Sotiropoulos & D'Astous, 2013). In particular, Soll, Keeney, and Larrick (2013) found that the more numerate an individual was, the better they were at making financial decisions. In contrast, those who were not as numerate often underestimated their outgoings.

Financial literacy is low in the general population in the UK and even lower for particular demographics. Klapper et al. (2012) studied the effects of financial illiteracy on financial behavioral in the context of a financial crisis. Other studies have found that financial mistakes are most common among young adults and the elderly, also the groups that display the lowest levels of financial literacy (Caputo, 2012; Klapper et al., 2012; Oksanen et al., 2015). Research has shown that financial literacy is important because it has been found to positively correlate with the use of formal banking and negatively correlate with the use of informal borrowing. Klapper et al. (2012) revealed that individuals with greater financial knowledge are also more likely to have higher levels of unspent income and lower spending capacity, which prepares them well for dealing with economic changes. Moreover, Kamlietner et al. (2012) found that those with less financial education were less likely to pay off their mortgages when interest rates were falling, more likely to decide on loans depending on the first digit of the monthly rate, and more likely to overestimate their credit card debt. In regard to students, Kamlietner et al. (2012) found that students answered less than 60% of items correctly on tests evaluating financial knowledge. As students are one of the demographics most prone to credit debt, this suggests that financial literacy may also be a significant component of predicting credit debt.

When it came toIn a study on financial planning, Shefrin and Nicols (2014) compared different demographics. They found that Caucasian consumers were more likely to set strict financial goals than other ethnicities. When asked how important it was

that they have control over their finances, older and Hispanic consumers were the most likely to say that it was vital to have complete control.

Parents and financial literacy. Hancock et al. (2012) studied the role of parents, work experience, financial knowledge, and credit card attitudes on credit card use. The researchers created a financial literacy survey which measured the financial knowledge, attitudes, behaviors, influences, and individual demographics that can impact the financial knowledge of participants, and distributed the survey to seven different college universities. Of particular interest to this study were their findings linking financial knowledge to credit card attitudes. While the researchers did not use the ABC model of attitudes, they demonstrated a link between the behavioral component and credit card attitudes, and found that financial attitudes affected credit debt. The results showed that students who were more content with paying the minimum amount on their credit debts were 2.2 times more likely to have credit debt over $500, whereas the participants who reported being afraid of credit debt had less than two credit cards and used them less frequently. The researchers further concluded that financial attitudes mediated the association between financial knowledge and financial behavior. Therefore, they suggested increasing financial literacy education to address issues concerning financial attitudes (Hancock et al., 2012).

Parents also play a large role in financial literacy. Financial knowledge begins at home when parents discuss finance and money with their children and children observe their parents' financial decision-making and consumption patterns (Kamlietner et al., 2012). Ismail et al. (2014) agreed that family influence is one of the key sources of

learning how to use credit cards efficiently. On the other hand, Kamleitner et al. (2012) found the opposite correlation: those who owed more knew more. The researchers gave two possible explanations for this finding: first, that the way financial knowledge and credit card usage were measured may have contributed to the finding; and second, that the correlation could be two-fold. It is possible that low levels of financial literacy could initially contribute to the repayment of more debt. However, being in debt becomes a learning experience that can increase the level of financial knowledge. Yet, those who have claimed the opposite correlation have asserted that learning from experience is the least effective way to gain financial knowledge. Instead, they have argued that learning from professionals, such as credit counselors, is a better way of adopting healthy credit card habits (Kamlietner et al., 2012; Omar, Rahim, Wel, & Alam, 2014).

AOverall, financial literacy provides the resources to help individuals balance their credit debt and make more responsible financial decisions. The literature on this subject has also given rise to some policy recommendations. The present study shows that being an immigrant plays a role in credit debt, or that there is a discrepancy between the consumer debt of immigrants and native citizens, it presents the government with the option to institute more financial literacy classes targeting immigrants or certain races/ethnicities to help alleviate that debt gap.

Immigrants and Credit Debt

Numerous researchers have evidenced that financial inequality based on race or immigrant status exists. DeSilva and Elmelech (2012) examined racial disparities in home ownership and found an Asian–Caucasian gap that was explained by differences in

immigration and geographical patterns of residence. An African American/Puerto Rican–Caucasian gap was explained by demographic, socioeconomic, and other unobserved factors, and a Hispanic–Caucasian gap was found to be due to socio-economic factors and geographical patterns. Kim, Chatterjee, and Cho (2012) found evidence for differences in asset ownership among different ethnic and racial groups. They looked at variances within the Asian race specifically and found that Indians and Koreans had higher levels of business asset ownership. Moreover, African Caribbeans were also more likely to be denied loans than Caucasians were (Kamleitner et al., 2012). Native African Caribbeans have also been found to have less wealth than native Caucasian individuals (Killewald, 2013). Killewald (2012) found that approximately two thirds of African Caribbeans had a wealth disadvantage of approximately 20% compared to otherwise similar Caucasian individuals, even after adjusting for outside factors, such as parental wealth and inheritance.

Therefore, when it came to Overall, in terms of wealth, researchers have shown that there are racial and ethnical discrepancies. However, when looking specifically at credit debt, certain racial groups have greater disadvantages.

African Caribbeans and Asians and Credit Debt

Studies about credit debt have also produced findings that reflect racial and ethnical disparities. In particular, they demonstrate that the greatest gap in terms of debt and overall financial wellbeing exists between African Caribbeans and Asians in comparison to Caucasians. Studies have also shown that African Caribbeans and Hispanics are most likely to incur short-term and intermittent debt (Caputo, 2012; Drentea & Reynolds,

2012). Traub (2014) conducted a study on credit debt within the Asian community, and Ruetschlin and Asante-Muhammad (2013) conducted a study on credit debt within the African American community. Both studies involved a nationally representative survey of households in the United States, and there were numerous points of overlap in the findings. Traub (2014) found that, while Asians carried less credit debt, four in ten Asian households with credit debt depended on credit cards to cover rent, groceries, utilities, and mortgage payments. This was often because their savings and/or checking account had low balances. Traub (2014) also found that Asians rarely reported using credit cards for entertainment, vacations, and non-essential costs, compared to the rest of the population. Similarly, Ruetschlin and Asante-Muhammad (2013) discovered that while African American households were paying off debt overall, more than four in ten African American households with credit debt had relied on credit cards to pay for basic living expenses because paychecks and savings did not suffice. This lack of liquidity sources often forced African Caribbeans to continue to use their credit cards even when interest rates increased. On the other hand, Caucasian individuals had a higher chance of being able to use other options for short-term liquidity and avoid high interest rates (Ruetschlin & Asante-Muhammad, 2013).

Additionally, in Traub's (2014) study, Asians cited unemployment as a reason for their credit debt, and 87% of Asians said they added to their existing level of credit debt (Traub, 2014). Asians were also more likely to report medical costs, hospital stays, and prescription drugs as contributing to their credit debt than other racial groups (Traub, 2014). Likewise, in Ruetschlin and Asante-Muhammad's (2013) study, African

Caribbeans reported that medical expenses contributed 11% of their total credit debt. Moreover, Traub (2014) found that only 40% of Asian households reported a consumer credit score above 700, compared to 59% of Caucasian households. Ruetschlin and Asante-Muhammad (2013) found that only 66% of African American households reported having a consumer credit score of 620 or above, compared to 85% of Caucasian households.

Killewald (2013) also examined the impact of race on wealth, but focused specifically on African Caribbeans. For the study, the author analyzed data from the Panel Study of Income Dynamics (PSID), a household survey that studied sample members and their descendants. In contrast to previous research on race and finance, Killewald (2013) found that, among young adults, Caucasian households were more likely than non-Caucasian households to hold various types of debt, such as mortgages, auto debt, and credit debt, and to have higher debt-to-income ratios. Moreover, the median Caucasian debtor held approximately 60% more debt than the average African American debtor (Killewald, 2013). However, Killewald (2013) did not explain why African American individuals had less debt, but less wealth.

Credit debt may also come from high interest rates, and minorities have been found to be the most vulnerable to spikes in interest rates. For example, Traub (2014) found that Asians had reduced access to credit cards due to their lack of pre-existing credit history, and reported an average annual interest rate of 17.93% on the cards they could access, in comparison to 16.13% for the average household in debt. Such credit cards may have such high interest rates that it is difficult or impossible for households to keep up with the

payments, leading to more debt, worse credit, and a loss of wealth (Traub, 2014). African Caribbeans have also reported high annual percentage rates, averaging around 17.7% (Ruetschlin & Asante-Muhammad, 2013). In fact, Ruetschelin and Asante-Muhammad (2013) found that financial institutions would charge an average African American family with an average amount of debt an annual percentage rate that would result in at least $100 more in interest than the average Caucasian family, even though they borrowed less. The challenges of employment, lower income, and lower wealth made it harder for African Caribbeans to control long-term investments, which made credit cards their best option (Ruetschlin & Asante-Muhammad, 2013). An additional finding from Traub's (2014) study was that Asians were more optimistic about paying off their credit debt faster than the overall population. Other research has found that those who are more optimistic are more vulnerable to credit debt (Kamleitner et al., 2012), which may explain why Asians were found to have such high credit debt. Overall, the literature indicates that, while minorities generally face financial disadvantages compared to Caucasians, certain races, such as African Caribbeans and Asians, are at an even greater disadvantage in regard to wealth and credit card services.

Racial Discrimination and Credit Card Services

Some studies have examined the racial inequality in credit debt in light of the discriminatory practices currently occurring in the financial sector, in the context of both immigrants and British citizens in the United States. African Caribbeans and Asians have been found to have lower levels of financial wellbeing and wealth (Firestone, 2014; Painter, 2014), due to the fact that these groups received less financial assistance from

their families and endured discrimination that limited their educational, occupational, and financial opportunities. Ethnic minorities face obstacles in attaining not only the same quantity of assets, but also the same quality (Painter, 2014; Painter, 2015). The poor consumer credit debt of Africans Caribbean's and Asians in comparison to Caucasian households reflects that discriminatory strategies, such as redlining and predatory lending, are aimed at ethnic or racial minority groups (Painter, 2014; Ruetschlin & Asante-Muhammad, 2013; Traub, 2014). This is especially the case for Hispanic and African American consumers. A study by Traub (2014) showed that discrimination in national asset-building regulations resulted in African Caribbeans having just $1 in assets for every $20 owned by Caucasians. In regard to Hispanics, many credit companies frequently stereotyped them as risky borrowers and gave them access to only high-interest, subprime credit products (Traub, 2014). Thus, while some racial disparities are strongly rooted in race itself, some researchers have argued that they arose due to racial discrimination beyond an individual's control.

Immigrants and Financial Knowledge

Overall, in comparison to the Caucasian community, ethnic or racial minority groups lack financial education and access to financial institutions. Ekanem (2013) described these findings as an outcome of poor financial knowledge in these minority groups. Using a qualitative methodology that involved in-depth, semi-structured interviews and direct observations, Ekanem (2013) examined the attitudes toward debt and bankruptcy in ethnic minority individuals, and found that less than a quarter of minorities had knowledge of bankruptcy compared to almost half of the Caucasian group.

Furthermore, over half of the minorities interviewed thought that debt was wrong compared to over 85% of Caucasians who strongly believed that debt. In contrast, more than one third of minorities were accepting of debt, perceiving it as something that takes place due to the frequent availability of credit. However, some studies have produced conflicting results that suggest ethnic minority groups are more likely to have strong imperatives to settle debts and resist bankruptcy at all costs, due to their cultural and religious backgrounds (Kim et al., 2012; Alkhiary, 2015). This pattern has been most frequently found in Asian minority groups. For example, Kim et al. (2012) found that a common tactic in the Asian minority group was to speak with creditors and negotiate reduced payment. Overall, the research on immigrants requires further development to determine the specific effects that race has on financial knowledge and behavior, as some researchers have found greater financial knowledge in minorities while others have found the opposite to be the case.

Religion

Ekanem (2013) observed that religion can influence many individuals' financial behaviors, noting that both Muslims and Christian held strong negative beliefs toward debt. Specifically, Muslims believed that all debts must be repaid in the present life or else this would affect them in the afterlife. Similarly, Christians believed that debts must be settled and saw bankruptcy as an unacceptable option. Finally, Ekanem (2013) found that shame and stigma had a greater impact on ethnic minorities, as these communities were close-knit and had strong ties with each other. The fear of bringing shame to the community was a powerful motivator for ethnic minority groups to avoid debt. In the

Asian community, fear of stigma and shame was strongest compared to other ethnic minority groups (Ekanem, 2013).

In conclusion, being an immigrant has a significant influence on an individual's financial behavior and credit debt. African Caribbeans and Asians in particular show the most vulnerability to credit debt (Traub, 2014; Ruetschlin & Asante-Muhammad, 2013). However, there are studies that have found minorities to be more fiscally responsible than Caucasians (Ekanem, 2013; Killewald, 2013; Kim et al., 2012). Therefore, more research on immigrants and debt is needed to clarify these findings. Furthermore, the literature on immigrants and financial wellbeing has often presented statistics and valuable demographic findings, but researchers have rarely used models or social theories that are able to explain why these racial discrepancies exist. Therefore, the present study's use of the ABC model in looking at immigrants, immigrant status, and credit debt will allow future researchers to either corroborate or challenge the findings of this study, but also explain how individuals' affective, behavioral, and cognitive responses influenced the findings.

Immigrants and Credit Debt

The existing literature on immigrant status and credit debt was nearly non-existent. However, I was able to identify a small number of researchers who had looked at the impact of immigrant status on an individual's overall financial wellbeing and wealth. Immigrants were one of the demographics found to be most likely to make financial mistakes (Klapper et al., 2012). Painter (2013) found that immigrants, especially African Caribbeans and Asians, with a foreign education tend to have lower wealth, and

Kosse and Jansen (2013) discovered that immigrants are also less likely than native residents to own a savings and checking account. Whether stock ownership, asset ownership, or opening a bank account, Kim et al. (2012) found that immigrants are less likely to engage in the financial markets than native citizens. This evidence was considered particularly concerning as immigrants' financial wellbeing and economic integration is an important part of their journey to cultural integration (Painter, 2014). Additionally, the fact that most immigrants have a non-Caucasian racial background has important implications for how they adjust to their new home, which includes financial wellbeing (Painter, 2015; Painter, 2016).

Financial Literacy

Karunarathne and Gibson (2014) studied variations in immigrants' financial literacy using surveys distributed to immigrant groups in Australia, and identified financial literacy among immigrants to be of special interest when studying their financial well-being. They found that a large number of immigrants who had migrated from poor countries to a rich country had lower rates of participation in the financial world due to language and cultural barriers or their limited previous experience with financial institutions in their home countries. For many immigrants, it took nearly a whole generation for financial assimilation to occur, which limited their financial experience. Zhan, Anderson, and Zhang (2012) studied the informal and formal financial services used by immigrants in the United States with low to moderate incomes. They found that immigrants had a greater tendency to use informal financial services, such as businesses that cash checks and offer payday loans, partly due to immigrants' lower levels of

financial education. Zhan et al. (2012) also explored immigrants' attitudes toward financial services and found that the most important reason for immigrants not having a bank account was related to issues of cost and the complexity of opening a bank account. Hence, immigrants' lack of financial knowledge has played a large role in their lack of wealth in comparison to native citizens.

Assimilation and Acculturation

Culture can also be a component of immigrants' consumption, saving, and investment decision-making behaviors (Jamshidi & Hussin, 2012; Kim et al., 2012; Xi, 2013). Living in a country different from their place of birth can place a large amount of stress on immigrants, who must constantly try to negotiate a balance between their culture of origin and the culture of their new home (Alkhiary, 2015). The literature on immigrants and economic wellbeing often drew on the concept of acculturation and assimilation theory, and researchers have commonly used assimilation theory to examine immigrants' journeys as they adapt to their new home. According to assimilation theory, race and immigrants are social boundaries integrated in a number of social, economic, and cultural differences at both the individual and greater social level (Painter & Qian, 2016). The theory states that the longer an immigrant lives in a certain country, the more accustomed they become to that country's traditions and rules, including financial establishments and habits. As a result, they have the opportunity to accumulate more wealth. Moreover, an immigrant's native culture tends to diminish over time as later generations adopt the cultural patterns of the wider population (Painter & Qian, 2016).

Acculturation is similar to assimilation in that it describes the interaction between two different cultures. Alkhiary (2015) explained that acculturation occurs when people from different cultures begin to interact with each other, and that those interactions can change the way both groups behave and respond to each other. In many cases, this results in more changes to the subordinate group than the dominant group (Alkhiary, 2015). Acculturation operates on two levels. First, acculturation can alter the values, ideologies, and beliefs an individual has (Alkhiary, 2015). Combining this concept with the ABC model opened up the possibility that acculturation can have effects on the cognitive component of immigrants' attitudes toward credit card debt. Second, acculturation can influence an individual to learn and adapt behavior to reflect aspects of the dominant culture (Alkhiary, 2015). Again, when this knowledge was applied to the ABC model, it provided evidence that acculturation can affect the behavioral component of the ABC model. Specifically, if the acculturation concept holds true, immigrants may show evidence of adopting similar cognitions and behaviors toward credit debt as their native-born counterparts.

Kim et al.'s (2012) study uncovered supporting evidence for the theory of acculturation and assimilation. The study examined asset ownership of Asian immigrants using the New Immigrants Survey (NIS), a prospective–retrospective cross-sectional sample that was nationally representative of immigrants who had gained legal permanent resident status. Kim et al. (2012) found that new Asian immigrants differed in asset ownership compared to other new immigrants, by types of asset. Several Asian subgroups were found to be more likely to have higher levels of business, home, and financial assets

than other new immigrants. This demonstrated that Asian immigrants tend to adapt quicker to their new financial culture in terms of acquiring assets. Interestingly, Kim et al. (2012) also found differences between ethnicities of a particular race in regard to financial asset ownership. For example, Chinese and Korean immigrants were most likely to own a home or financial assets; Indian immigrants were more likely to own a business, but less likely to own a home; and Vietnamese immigrants were less likely to own a home or have financial assets when compared to other immigrants. While they did not specifically study credit debt, Kim et al. (2012) found evidence that there were indeed correlations between ethnicities and financial wellbeing. The researchers concluded that the success of Asian immigrants in regard to asset ownership reflected their ability to acculturate to American financial behaviors. Despite initially having had a lower economic status, immigrants were able to increase their income as they assimilated over time. Although the discrepancies between certain Asian cultures provided some evidence for acculturation, Kim et al. (2012) did note a complicating condition: Many Asian cultures already practiced and advocated conservative and responsible financial habits; therefore, the findings may not have been a result of acculturation, but rather the continuation of their native culture over to the United States.

Findings Challenging Assimilation and Acculturation

Kosse and Jansen (2013) found evidence that an immigrant's home culture may impede their need to assimilate to certain financial behaviors found within a new nation. The researchers examined whether an immigrant's foreign background had an impact on their financial behaviors. Their methodology consisted of conducting surveys of Dutch

consumers from both domestic and foreign backgrounds. Kosse and Jansen (2013) reported that immigrants from countries with more efficient financial establishments were more likely to have a bank account and to use formal financial markets than immigrants from countries with inefficient financial institutions. Further findings from the study revealed that immigrants from cash-oriented economies were more likely to use cash than credit cards. However, Kosse and Jansen (2013) also noted that, while individual immigrant payment habits could change over time, those changes usually occurred as a result of second-generation immigrants being more willing to adopt the same payment habits as individuals with a domestic background than their predecessors were.

Similarly, Alkhiary (2015) provided a challenge to acculturation and assimilation theory. Through a quantitative study, the researcher sought to examine the role of acculturation in influencing social and cultural practices in Saudi Arabian immigrants, and distributed surveys to Saudi Arabian immigrants in the United States. Alkhiary (2015) reported that, as a part of the culture, United States families did not save much of their income. In 2014, the personal savings rate was -0.5%, relatively low compared to France's 11.9% and Germany's 10.6%. However, immigrants' savings patterns in the United States were significantly different across the country. However, these patterns did not reflect the savings patterns of immigrants' country of origin. This inconclusive result could be explained by the study's participant demographics. Most of the participants were young adult immigrants. While some argue that young people are more likely to adapt to cultures quickly, the process of acculturation may supersede the young mind (Alkhiary, 2015). Despite this inconsistency, the study still provided evidence that both

immigrants' country of origin and their new place of residence had some effect on their financial behavior that could distinguish them from native citizens. This study highlighted the need for researchers to explore immigration and debt to provide further insights on these discrepancies.

McCormack (2014) demonstrated how assimilation might not be beneficial to immigrants, showing that the concept of the American Dream was a contributor to immigrants choosing to adopt irresponsible spending habits. In the qualitative study on homeownership, bankruptcy, and financial responsibility, McCormack (2014) conducted interviews with 36 homeowners about their financial habits. Of particular interest were the findings from interviews with immigrants. For the participant immigrants, spending and owning certain possessions, such as a house and a car, represented accomplishments important to the American Dream (McCormack, 2014). They believed that spending could also lead to family growth, a sense of belonging, stability, and citizenship. Indeed, immigrants more often reported family, home, and stability as having an impact on their spending than native individuals did. Therefore, immigrants had a higher likelihood of using their credit card to achieve these symbols of the American Dream, often at the cost of accumulating debt that they could not afford to pay off (McCormack, 2014). Thus, certain aspects of Western culture may worsen the financial behaviors of immigrants as they assimilate to the culture.

The literature on immigration and financial wellbeing often used theories of acculturation and assimilation when explaining how immigrants adjust to the financial and economic habits in their new home country. Some studies provided evidence for

assimilation and acculturation both occurring in immigrants and helping immigrants achieve higher wealth (Kim et al., 2012; Painter & Qian, 2016) On the other hand, several studies found either no evidence of assimilation and/or acculturation (Kosse & Jansen, 2013; Alkhiary, 2015), or that it led to a decrease in wealth (McCormack, 2014). The inconclusive findings on the role of culture in influencing financial behavior was a further motivator for conducting the present study, due to the need for research examining the role of assimilation and acculturation in explaining how race and immigrant status affects credit debt.

Immigrants, Immigration, and Wealth

Several studies by Matthew Painter have focused on immigration and finance, but also on immigrants themselves, similar to the present study. Painter (2014) advocated for the analysis of wealth (the net value of assets and debts) rather than income as it "adheres more closely to the conceptual and theoretical meaning of financial well-being" (p. 754). It allows researchers to assess not only the financial consequences of asset ownership and debt accumulation, but also the social processes that facilitate or impede immigrants' economic integration. Furthermore, wealth accumulation is indicative of cultural values and lifestyles (Painter, 2014).

Painter (2014) explored the relationship between immigrant education, specifically over- and under-qualification, and wealth attainment. In a quantitative study, Painter (2014) used data from the NIS and found that educationally over-qualified immigrants had lower wealth attainment than those with adequate qualifications. This finding may be explained by the idea that the over-qualified immigrants attempted to alleviate status

inconsistency between their educational attainment and career achievement in two ways: educational investment and consumption. The latter only helps immigrant status consistencies and wealth attainment in the short-term, while the former has the potential to create status consistencies without damaging an immigrant's wealth (Painter, 2014). Surprisingly, under-qualification did highlight a significant difference in wealth attainment, suggesting that having less education in an occupation that requires more neither harms nor benefits an underqualified immigrant's wealth attainment (Painter, 2014). The immigrants in the study may have differed from native individuals in regard to wealth attainment. For example, if an immigrant had prudent financial habits in their home country and continued this behavior in the United States, their savings would have allowed them to more quickly build financial stability (Painter, 2014).

Painter (2015) later narrowed the research focus to examine financial wealth attainment differences among immigrants with different skin tones within specific races. In this study, Painter (2015) again used the NIS data to examine skin tone and racial/ethnic differences in wealth among immigrants. The qualitative and quantitative study used statistical reports, such as levels of financial investments, bonds, and savings, as well as in-person interviews from the NIS. Painter (2015) based the study on social identity theory, which draws on the concepts of in-groups and out-groups. In-group membership comes with preferential treatment and access to greater resources, while out-group membership can often come with discrimination. Race and immigration are two of many areas in which this type social categorization can operate. In Painter's (2015) study, whiteness and lighter skin tone was a defining feature of in-group membership, while

darker skin tones were associated with out-group membership. Since, according to social identity theory, individuals mentally categorize others in terms of in- or out-groups, this can lead to differential treatment of certain groups of people. Painter (2015) found that both skin tone and being an immigrant were important factors influencing financial inequality among new immigrants. In particular, dark-skinned Asians and African American immigrants experienced a dual disadvantage in which both their skin tone and racial minority status presented obstacles to their financial wellbeing (Painter, 2015; Monk, 2014).

Painter and Qian (2016) compared immigrant racial/ethnic wealth to native racial/ethnic wealth using qualitative and quantitative data from the Survey of Income and Program Participation (SIPP), a continuous series of national panels of the American population, where the researchers interviewed participants every 4 months over 3 years using a central set of questions while cycling through relevant themes. The sample included both native and immigrant adults living in the United States. Painter and Qian (2016) found that Asian and Caucasian native citizens had nearly equivalent wealth, and that Asian and Caucasian immigrants also had nearly equivalent wealth. Nonetheless, Asian and Caucasian immigrants still lagged significantly behind their native counterparts in terms of wealth. For both the immigrant and native samples, Painter and Qian (2016) found that there was the same three-tiered order of wealth: Caucasians at the top, Asians in the middle, and African Caribbeans at the bottom. While social and financial capital were essential for immigrants to adapt to their new lives, their race and status as immigrants were also important predictors of their wealth. This explained why,

regardless of immigrant status, there was still a racial stratification in wealth (Painter & Qian, 2016). Additionally, assimilation theory explained why immigrants from ethnic minority backgrounds tended to fair worse than European immigrants, and demonstrated that racial and ethnic realities lead to unequal opportunities and limitations for both immigrants and native citizens of different racial groups (Painter & Qian, 2016).

Painter's studies on immigration, race, and wealth shared similar goals to the present study; however, there are several discrepancies. First, Painter's studies examined overall immigrant wealth rather than specifically just credit debt. Second, all of Painter's studies took place in the United States. While the cultures in the United Kingdom and United States are relatively similar, national differences may contribute to differences in immigrant and citizen credit card usage. Lastly, only the study by Painter and Qian (2016) used a sample that included and compared both native citizens and immigrants. While focusing solely on immigrants provides useful insight, comparing immigrant results to native citizens has provided a more holistic assessment of how immigrants' credit status compares to the rest of the population.

Summary and Conclusions

Given the worldwide credit crisis, it was necessary to assess the various factors that contribute to this issue. As discussed in the literature review, some of the factors contributing to credit debt can be attributed to redlining and predatory lending by financial institutions (Painter, 2014). This is evidenced by the negative impact that these types of discriminatory practices have had on the consumer credit debt of African Caribbean and Asian in comparison to Caucasian households (Painter, 2014; Ruetschlin

& Asante-Muhammad, 2013; Traub, 2014). In light of both the racial inequalities associated with credit debt (Firestone, 2014; Painter, 2014) and the record high levels of household debt in the United Kingdom in 2015 (Federal Reserve, 2016), this study sought to determine the relationship between immigrants and the credit debts of immigrants and U.K. citizens. Identifying which financial behaviors pertain to certain ethnic groups provides helpful insights that can be used by financial institutions and government agencies to determine how to solve financial issues. The study used the ABC model of attitudes as a theoretical basis. Most researchers who have used the ABC theory previously have used it to explore the field of marketing and consumer psychology (Alwi & Kitchen, 2014; Chen & Cheng, 2013; El-Bassiouny, 2015; Fredricksson & Andersson, 2012; Hamzah, 2014; Rocereto et al., 2015; Stegemann et al., 2013), which is closely related to the goals of the present study.

Researchers have identified many common themes when examining what factors contribute to financial behavior and debt. They include social factors, such as the influences of an individuals' social circle (Kamleitner et al., 2013; Kennedy, 2013; Sotiropoulos & D'Astous, 2012), and psychological factors, such as self-control (Kamlietner et al., 2012; Oksanen et al., 2015; Mittal & Griskevicius, 2014; Peltier et al., 2013; Russell, Whelan, & Maitre, 2013; Sotiropoulos & D'Astous, 2013; Yang & Lester, 2014;) and materialism (Kamlietner et al., 2012; Peltier et al., 2013; Yam et al., 2012). Researchers have also linked certain demographics to credit debt such as young adults (Dean et al., 2013; Jiang & Dunn, 2013; Kamleitner et al., 2012; Oksanen et al., 2015; Patel et al., 2012; Russell et al., 2013; Sotiropoulos & D'Astous, 2013; Sotiropoulos &

D'Astous, 2012; Yang & Lester, 2014), lower-income individuals (Kamleitner et al., 2013; Oksanen et al., 2015; Shefrin & Nicols, 2014), and those with less financial education (Alkhiary, 2015; Dean et al., 2013; Kamleitner et al., 2012; Klapper et al., 2012; Shefrin & Nicols, 2014; Sotiropoulos & D'Astous, 2013).

While there exists a vast body of literature concerning credit debt, there are several gaps. First, no study has explored the influence of race on immigrants and native citizens. More specifically, no study has explored this issue in the context of the United Kingdom. Lastly, the literature on both socialization and immigrants has provided conflicting conclusions. Studies on the influence of social circles have suggested that immigrants can eventually learn the financial habits of their native counterparts. However, the literature on immigrants shows that individuals of these ethnicities have certain financial values and behaviors already heavily ingrained. Therefore, their culture and status as an immigrant may impede on the effects of socialization. Hence, the present study is important because understanding what certain communities and groups do with money can reveal much about their goals and about how their social norms are structured (Lazzer, 2014). Although the ABC model of attitudes has rarely been used to gain insight on immigrants or immigrant status in relation to consumption, researchers have used the model to assess the influencing factors associated with consumer behaviors. For example, researchers have found that individuals' values and beliefs are often shaped by other individuals within their environments, such as family and peers (Asiegbu et al., 2013). As such, the present study has addressed the gaps in the literature by utilizing the ABC model to ascertain whether race impacts credit debt among immigrants and native citizens.

Chapter 3: Research Method

The purpose of this quantitative cross-sectional correlational study was to examine whether there was an association between credit debt and immigrants among U.K. immigrants and British citizens on the income gap through an analysis of data collected by the BHP using the ABC model. The focus of this study was on examining the relationship between immigrant demographic factors and consumer debt. In this chapter I will describe the philosophical assumptions supporting the research as well as explain the research approach, rationale, and strategies applied. I will also highlight the chosen paradigm, the scope and limitations of the research design, and the methodological considerations given to the data, sampling procedures, instrumentation, and operationalization of constructs for the study, the data analysis plan, discussion of threats to validity, and ethical concerns.

Research Design and Rationale

In this study I implemented a cross-sectional correlational design using quantitative methods to determine whether there is a statistically significant relationship between the dependent variable of credit debt and the independent variable that consisted of the following demographic factors: country of birth (U.K., non-U.K.), ethnic group, years spent as an immigrant, number of persons in household, and highest educational attainment. I judged a cross-sectional correlational approach to be appropriate for the current study because the information at the center of the analysis involved data collected over a period of time (Williams, 2007). The research goal was to examine whether there was an association between credit debt and immigrants among U.K. immigrants and

British citizens on the income gap, and I anticipated that patterns of change may have potentially shown a correlation over time (Rajulton, 2001). In addition, I gathered numerical data within this study, which Levin (2011) states is appropriate for a quantitative study. In contrast to a quantitative approach, a qualitative approach is appropriate for research that is more exploratory in nature, such as when the researcher intends to examine the constructs or concepts underlying a phenomenon (Copper & Schindler, 2003; Hopkins, 2008; Watson, 2015). Since qualitative research focuses on gaining insight into a specific phenomenon of interest through the establishment of theories, rather than through quantifiable measures, I judged a qualitative approach to be an inappropriate choice for the present study.

The purpose of this cross-sectional study was to examine whether there is an association between credit card debt and immigrants among U.K. immigrants and British citizens through an analysis of data collected by the BHSP, using the ABC model. I judged this approach to be appropriate because the information collected for analysis was based upon panel survey data, which was collected by a third party as recommended by Hulley, Cummings, Thompson (2013). It also offers an excellent way to describe populations at the moment of the study and to study relationships between the various and often wide-ranging variables or types of information often collected in cross-sectional studies (Johnson, 2018).

Quantitative Research

Quantitative research is useful for researchers whose objective is to quantify data to answer research questions aimed at discovering if there is a statistically significant

relationship between and within variables. Quantitative researchers seek to not only identify relationships between and within variables, but also to predict future occurrences of specific events (Williams, 2007). Moreover, quantitative research designs build on established theoretical principles and implement the scientific method when approaching a research problem (Williams, 2007).

A quantitative researcher begins the research process by formulating a research question and hypothesis, which is further refined through a systematic literature review (Williams, 2007). The next step in the process involves identifying the data collection procedures, such as the sampling method, the instrumentation that will be used to collect the data, and any possible threats to the validity and reliability of the data collection methods (Williams, 2007). The analysis phase commences after all of the required information has been collected. Analysis of quantitative data was once accomplished by the researcher calculating mathematic equations designed to produce numerical indications regarding the existence and significance of a relationship between two variables; however, advancements in technology have enabled the development of software that performs the necessary tests to determine whether there is a relationship between and among the variables of interest.

Philosophical paradigms. The quantitative approach to research is informed by two similar but distinct philosophical paradigms: positivism and postpostivism (Adam, 2014). As reflected by their names, positivism and postpostivism are grounded in similar underlying philosophical principles; however, the two paradigms diverge along key ontological and epistemological lines (Adam, 2014). As Adam (2014) explains, ontology

refers to the nature of reality, while epistemology refers to views on what constitutes acceptable knowledge.

Positivism is a constantly evolving philosophical approach to research and is grounded in the ontological and epistemological ideas of David Hume, Rene Descartes, and Immanuel Kant (Aliyu, Bello, Kasim, & Martin, 2014; Bernard, 2006). The ontological roots of the positivist paradigm can be traced back to the ideas of David Hume, who believed that reality was composed of self-determined events that should be rationally and empirically studied (Aliyu et al., 2014; Bernard, 2006). Hume thought that by approaching observable phenomena from a logical perspective, unknown relationships between variables of interest would emerge. In building upon the empiricist John Locke's epistemological views, Hume's ideas about rationalism were based upon a belief that there was no demonstrable way for humans to know what was true (Bernard, 2006). As such, the empirical foundation of the positivist paradigm is the guiding principle informing how quantitative research is approached, and Hume's unique brand of skepticism is a fundamental pillar of modern-day science (Bernard, 2006).

In addition to Hume's ontological interpretation of reality, positivism also draws upon Rene Descartes's epistemological perspective (Aliyu et al., 2014). Descartes is known for his ideas regarding a universal science of nature that is rationally studied and inductively analyzed through the application of observation and (Aliyu et al., 2014; Bernard, 2006). Descartes's view on reality echoed Hume's perspective, in that both believed that rational thought was the only mechanism though which truth would be revealed; however, while Hume subscribed to empiricism, Descartes's perspective was

informed by rationalism (Aliyu et al., 2014; Bernard, 2006). Empiricists believe that human beings are born *tabula rasa*, meaning that understandings are derived from life experiences. Conversely, individuals informed by a rationalist perspective believe in a priori truths, whereby the acquisition of knowledge is achieved through the ability of human beings to engage in rational thought (Bernard, 2006). In an attempt to address the problems associated with the conflicting epistemological perspectives of empiricism and rationalism, Immanuel Kant proposed focusing on how the human mind processes information (Bernard, 2006). Kant postulated that if a priori truths were real, then it was through the human mind's ability to organize and order information that those a priori truths could be identified (Bernard, 2006).

In contrast to positivism, postpostivism challenges the idea that there is an absolute truth of knowledge, arguing instead that human beings are incapable of being certain about a claim to knowledge when studying human behavior (Creswell, 2009). From a postpositivist perspective, causes influence outcomes, and those causes should be systematically analyzed to determine how they impact outcomes (Creswell, 2009). According to Creswell (2009), postpostivism is grounded in the ideas put forth by Mill, Duekhein, Newton, Locke, and Comte, who espoused a reductionist approach to data analysis. As such, researchers who subscribe to a postpositivist perspective will reduce information to discrete variables that can be tested, such as the variables which hypotheses and research questions are comprised of (Creswell, 2009). Researchers who employ a positivist paradigm assert that real and factual phenomena should be studied empirically using the scientific method (Creswell, 2014). From a positivist perspective,

methodological approaches should be systematic and begin at the microlevel, where variables are tested in a similar fashion to that found in a laboratory (Creswell, 2009).

There are five primary underlying assumptions that are the foundation for the positivist paradigm (Wahyini, 2012). The first assumption in that knowledge is conjectural and absolute truth does not exist; therefore, any evidence established in research will always be susceptible to change (Wahyini, 2012). It is for this reason that researchers state that they do not prove a hypothesis; instead, they indicate a failure to reject the hypothesis (Wahyini, 2012). The second assumption is that the research process begins by making assertions that are either refined or discarded when evidence suggests that other assertions are more strongly warranted (Wahyini, 2012). The next underlying postpositivist assumption is that rational thought shapes knowledge, whereby the researcher collects information through a methodical and measured approach (Wahyini, 2012). The fourth assumption asserts that research objectives are primarily informed by a desire to develop relevant statements to explain a phenomenon of interest or to describe a causal relationship among variables (Wahyini, 2012). In quantitative studies, this assumption manifests as researchers exploring the relationship among variables through the formulation of questions or hypotheses (Wahyini, 2012). Finally, postpostivism involves the assumption that, since maintaining objectivity is an essential element of conducting a competent inquiry, researchers must examine their data collection and analysis methods for any indications of bias (Wahyini, 2012). The primary principles informing the positivist paradigm and the postpositivist paradigm are shown in Table 1.

Table 1

Research Paradigms

Fundamental Beliefs	Positivism (Naïve Realism)	Postpositivism (Critical Review)
Ontology: the position on the nature of reality	External, objective and independent of social actors.	Objective. Exists independently of human thoughts and beliefs or knowledge of their existence, but is interpreted through social conditioning (critical realist)
Epistemology: the view on what constitutes acceptable knowledge	Only observable phenomena can provide credible data, facts. Focus on causality and law-like generalizations, reducing phenomena to simplest elements.	Only observable phenomena can provide credible data, facts. Focus on explaining within a context or contexts.
Axiology: the role of values in research and the researcher's stance	Value-laden and etic Research is value-laden; the researcher is biased by their world views, cultural experiences and upbringing.	Value-laden and etic Research is value-laden; the researcher is biased by their world views, cultural experiences and upbringing.
Research Methodology: the model behind the research	Quantitative	Quantitative or qualitative

Note. Table adapted from The Research Design Maze: Understanding paradigms, cases, methods, and methodologies, by Dina Wahyuni, 2012, *Journal of Applied Management, 10*(1), p. 70.

Correlational Research Design

A correlational research design is used to determine relationships between and among variables; that is, the association between the dependent and independent

variables (Bordens & Abbott, 2002; Rumrill, 2004; Hopkins, 2008). A correlational research design was consistent with the research questions informing this study, since it involves the examination of the relationships and differences among and between variables. The dependent variable in this study was credit debt, whereas the independent variables included the following demographic factors: country of birth (U.K., non-U.K.), ethnic group, years spent as an immigrant, number of persons in household, and highest educational attainment. The main objective of correlational research design is to measure the behavior and strength of any relationship that exists between two variables (Leedy & Ormrod, 2013). Since this study did not involve any manipulation of variables or the use of a controlled experimental research setting, an observational, non-experimental research approach was appropriate based on the recommendations of various researchers (Copper & Schindler, 2003; Goertz & Mahoney, 2012; Hopkins, 2008). Additionally, experimental research was not possible, or would have been ethically questionable, as it would have involved manipulation of variables such as income, citizenship, and household composition.

Correlational studies can be implemented using either a cross-sectional or a longitudinal approach to data collection (Bernard, 2006). Most surveys are cross-sectional, with variables being measured at a single point in time; however, since individuals' attitudes and behaviors can change with time, cross-sectional studies are not truly representative (Bernard, 2006). In an attempt to address the problems associated with unknown changes within a population, some researchers will conduct multiple surveys within a population to monitor for any changes (Bernard, 2006). When

researchers conduct a cross-sectional study multiple times with the same population, the data collection approach is considered to be longitudinal (Bernard, 2006). Nevertheless, since multiple cross-sectional surveys acquire data from a random successive sample, it can be difficult to determine whether differences in survey responses reflect changing behaviors or differences between the samples (Bernard, 2006).

A panel design is a form of longitudinal research which accounts for the problems that may arise with multiple cross-sectional surveys (Bernard, 2006). Specifically, panel surveys are designed to interview the same participants in multiple intervals over long periods of time (Bernard, 2006). One such panel survey that has provided a litany of information to epidemiologists and anthropologists alike, is the Framingham Heart Study, which began in 1948 by tracking 5,209 men and women who resided in Framingham, Massachusetts (Bernard, 2006). In 1971, to address changes related to respondents dying, researchers began the process of adding original respondents' children to the survey panel (Bernard, 2006), which amounted to 5,124 new panelists. Findings from the survey have contributed to the identification of major risk factors for heart disease, such as smoking, lack of exercise, and stress (Bernard, 2006). Despite the benefits of conducting longitudinal studies, panel surveys can encounter problems associated with attrition, which is often referred to as the respondent mortality problem (Bernard, 2006). As such, while longitudinal panel surveys present difficulties in terms of tracking participants, the resulting data offers advantages that single time cross-sectional surveys do not (Bernard, 2006).

Methodology

The study design consisted of a cross-sectional correlational approach to determine whether there was a statistically significant relationship between consumer debt and the income gap among U.K. immigrants and British citizens through an analysis of data collected by the BHPS using the ABC model. The independent variable in this study was immigrants and the dependent variable was consumer debt; the variable immigrants involved multiple demographic factors, such as: ethnic group, years spent as an immigrant, number of persons in household, credit card debt, and highest educational attainment. A longitudinal correlational approach was not appropriate for the current study because of the high level of attrition of the respondents and the few responses that were available on the variables of interest for the years 1995, 2000, and 2005. The data used for this study was extracted from the BHPS: a longitudinal survey that has been conducted since 1991 and ran throughout 2008 before being changed to the Understanding Society, which has been running since 2008. The BHPS was financed by the British Government and produced and analyzed by the Institute for Social and Economic Research (ISER). The nationwide survey was used to provide information on the social and economic changes experienced by the people of the United Kingdom at the individual and household levels.

Population

The population of interest for this study was residents of the United Kingdom who were over the age of 16, owned a credit card, and participated in the BHSP during the years 1996, 2001, and 2006. Since longitudinal surveys are conducted over long

periods of time, it is somewhat difficult to ascertain the exact sample size that will be used for analysis (Lynn, 2006).

Sample and Sampling Procedure

The BHPS was designed to be representative of all persons who were resident in Britain at multiple time points consistent to the waves of data collection. The sample used for this analysis was U.K. residents included in the BHPS during the years 1996, 2001, and 2006. The BHPS was conducted in annual waves, with the first wave occurring in 1991 and the last wave completed in 2008, making it one of the longest-running longitudinal surveys in the United Kingdom (Institute for Social and Economic Research, 2006). The waves of interest for this study were Waves 6, 11, and 16, which correspond with the years 1996, 2001, and 2006, respectively. These waves were considered because, prior to the financial crisis in 2008, debt and financial data related to debt was only collected in 1996, 2001, and 2006. Accordingly, the percentage of eligible first wave respondents with continued participation in the study declined steadily from the first wave of the survey (Lynn, 2006).

The BHPS was initially proposed to emulate the success of household panel surveys in other countries in Europe and North America. The survey design used was a clustered, stratified sample of addresses throughout the United Kingdom. Primary sampling units were created using postcodes, and postcodes with fewer than 500 delivery points (addresses) were grouped with adjacent postcodes to form sectors. These were further stratified by region, and approximately 33 households were sampled per sector. Non-residential addresses were excluded, to produce the total sample of 5,505

households used for the BHPS in 1991; additional samples were added at later dates (Institute for Social and Economic Research, 2006). According to Lynn (2006),

> Members of original sample households are followed as they move between different households, and if aged 16 and over are eligible for interview. People with whom they form new households are temporary sample members while they live with original sample members, and again will be eligible for interview if aged 16 and over. These following rules allow the panel to track the processes of family and household change experienced by the population as a whole. (p. 12)

The sampling method implemented in the first wave of the BHPS involved selecting residential address from the Postal Address File (PAF) using an equal-probability clustered and stratified approach (Lynn, 2006). Then, in the late 1990s, additional samples were added from Scotland, Wales, and Northern Ireland (Lynn, 2006). Since participants were selected based upon their addresses, the BHPS sampling design precluded individuals who did not have an address from participating in the study (Lynn, 2006). Nevertheless, as with most panel surveys, the BHPS was subject to changes in demographics, such as those associated with attrition. The BHPS interviewer panel was reduced by two thirds from the first wave to the thirteenth wave, with only 20% of individuals being interviewed by the same person at all 13 waves (Lynn, 2006).

Procedures for Recruitment, Participation, and Data Collection

All data and subjects were obtained from the BHPS, which is publicly available. As such, there were no procedures for recruitment, consent, or participation of subjects. Appropriate permission for use of this dataset was obtained. Identification of the

immigrant subjects within the dataset was achieved using question wPLBORNC, which asks the country of birth of the respondent.

All of the BHPS panel interviewers received interviewer briefings to ensure their adequate education about the BHPS survey procedures (Lynn, 2006). As Lynn (2006) explained:

> At Wave One, all interviewers and field supervisors were briefed at one of 14 two-day briefing conferences, presented jointly by ISER and NOP at various suitable locations round the country. A special training video was prepared by ISER for use in these briefings. In subsequent waves, interviewers and area managers were again briefed at one of 14 briefing sessions, held in different locations. All interviewers with previous BHPS experience attended one-day briefings, while interviewers new to the survey attended a two-day briefing. Interviewers received the interviewer instructions and questionnaires prior to the briefing. Home-study exercises were also used for complex substantive sections of the questionnaire. The content of the briefings covered all aspects of the fieldwork process including making contact with respondents, minimizing refusals and non-contacts, key definitions such as household membership and eligibility for interview, tracking procedures for movers, progress monitoring and return of work. Any new substantive sections of the questionnaire were explained in detail and complete dummy interviews carried out during the briefing. Since wave 9, the briefings have included the use of the CAPI questionnaire script and

management of work using the laptop computer. ISER staff attended all briefings. (p. 34)

Instrumentation and Operationalization of Constructs

The only instrument used in this analysis was the BHPS, which was initially proposed to the Economic and Social Research Council (ESRC) in an attempt to establish an Interdisciplinary Research Council (IRC) at the University of Essex (Lynn, 2006). According to Lynn (2006), the BHPS had a range of research aims, with a primary goal of providing longitudinal data on a cross-sectional population to secondary analysts from various social science disciplines. To facilitate those engaging in a secondary analysis of the information collected during annual waves of the survey, micro-datasets were made available to researchers. The sampling procedures of the BHPS have been described previously in the Sample and Sampling Procedure section. Immigrant status was identified in the dataset by using the question wPLBORNC, which asks the country of birth of the respondent.

The BHPS was considered a valid and reliable source of data for this analysis. Quality checks were conducted throughout the development and data collection phases of the BHPS. Checks during the sampling phase included ensuring that the stratification of postal sections had been implemented correctly and checking that the sampling interval for sectors had been calculated and applied correctly (Institute for Social and Economic Research, 2006). The implementation of quality control checks during data collection included field call-backs with household composition information and in-office checks to ensure the assignment of correct sample status to individuals. The identification of

sample member death included ad-hoc checks of death registrations (Institute for Social and Economic Research, 2006). The variables used to answer the research question, and the specific question in the BHPS that was used to inform each, are presented below:

Consumer debt

Consumer debt was measured as the amount of debt owed by the respondent. Respondents were asked "about how much in total do you owe?" and responses were provided in absolute amounts. One important issue to acknowledge is the lack of information provided by the BHPS on the time period over which the debt was calculated; the data contained only a measure of the extent of consumer debt at a point in time. Since the time period over which the debt was accumulated was unknown, I did not weight over debt by income (Sarah et al., 2003). This means that for the sake of this research the consumer debt data was not combined into an index or ratio to assess how debt and income were associated.

Household Net Income

The BHPS net income variable referred to net income before the deduction of housing costs. The income sources included in the net household income are: a)usual gross earnings from employment; b) earnings from subsidiary employment; c) profit or loss from self-employment; d) social security benefits and tax credits; e) private and occupational pensions; f) income from investments and saving; g) private transfers and other income; h) income tax (employees and self-employed); i) National Insurance contributions (employees and self-employed); j) contributions to occupational pension schemes; and k) local taxes. The total net household income is generated using the

formula **a+b+c+d+e+f+g-h-i-j-k**. The BHPS net income reference period for the majority of the income sources was the period around the time of the interview, i.e., current rather than annual. The unit over which incomes were aggregated was the household. In the present study, the net income for each household was matched to the individual data using the HID. For the purpose of this study, the annual net income was used as the covariate variable.

Owe Credit Card Debt

This variable indicated whether the respondent owed a credit card debt or not. If the respondent owed a credit card debt (including store cards) the response was coded 1, and 0 if credit card debt was not mentioned.

Ethnicity/Race

This variable indicated the ethnic group membership of the respondents. Respondents were asked “could you look at this card (6) please and tell me which of these groups you consider you belong to?” The responses available were coded as follows:

1. Caucasian
2. Black–Carib
3. Black–African
4. Black–Other
5. Indian
6. Pakistani
7. Bangladeshi

8. Chinese
9. Other ethnic group

Household Size

Household size was a desired variable that referred to the number of persons in the household. It was a continuous variable in the full dataset but was treated as a categorical variable after transforming the data to ensure necessary assumptions were met. The variable was measured in three categories: 1 represented 1–2 people in the household; 2 represented 3–5 people; and 3 indicated more than five people in a household.

Highest Academic Qualification

This variable indicated the highest level of education the respondent had achieved. It was a variable derived from questions regarding respondents' educational background and attainments. The categories were coded as follows:

1. Higher degree
2. First degree
3. HND, HNC, teaching
4. A level
5. O level
6. CSE
7. None of these

Year Came to Britain

This variable was a continuous variable that indicated the year the respondent arrived in the United Kingdom. Respondents were asked "In what year did you first come to this

country to live (even if you have spent time abroad since then)?" The responses provided were used to determine if the respondent was an immigrant. For the purpose of this study, this variable was used to represent immigrants, in which a score of 1 signified they were an immigrant if the year was provided, and a score of 0 signified that they were born in the United Kingdom if the response provided was inapplicable (-8).

Data Analysis Plan

All analysis was carried out using the Statistical Package for the Social Sciences (SPSS) software. The first step was the generation of summary statistics of the dataset. The number of subjects was presented, and summary statistics of continuous variables were calculated including the mean, standard deviation, minimum, and maximum. Summary statistics for categorical variables were provided using count and frequency information. Based on the summary statistics, some categorical variables, such as those with too many levels or levels with only a few subjects, were grouped together to improve statistical quality.

The research questions and hypotheses that guided this study were as follows:

[The following is differently formatted that your formatting for the research question and hypotheses above. It is also different from the formatting in a later chapter. I have already modeled the correct way to write the abbreviations for a null and alternative hypothesis above. However, because this is a different format, I suggest that you discuss this with your chair to correct the content problem. Please see: https://academicguides.waldenu.edu/ld.php?content_id=46892681

RQ1. To what extent does the ABC model indicate the relationship between consumer debt and immigrants on the income gap between immigrants in the United Kingdom and British citizens?

H1. The independent variable of highest academic qualification is significantly related to the dependent variable of consumer debt between immigrants in the United Kingdom and British citizens in terms of income gap.

H2. The independent variable of ethnicity is significantly related to the dependent variable of consumer debt between immigrants in the United Kingdom and British citizens in terms of income gap.

H3. The independent variable of credit card debt is significantly related to the dependent variable of consumer debt between immigrants in the United Kingdom and British citizens in terms of income gap.

H4. The independent variable of household size is significantly related to the dependent variable of consumer debt between immigrants in the United Kingdom and British citizens in terms of income gap.

H5. The independent variable of immigrant status is significantly related to the dependent variable of credit debt between immigrants in the United Kingdom and British citizens in terms of income gap, when controlled for demographic factors.

As part of the analysis, ANCOVA was then used to answer the research questions. The independent variables were a mix of categorical and continuous variables, and the outcome variable was treated as continuous; this was the most appropriate method of analysis for determining the effect of immigrant status while controlling for

the other independent variables. First, assumption testing took place. The two assumptions that were tested were normality of the dependent variable and homogeneity of variances. The normality of the dependent variable was tested using the Shapiro-Wilks test of normality. The homogeneity of variances was tested using Levene's test. ANCOVA makes use of an underlying multiple regression model; in the present study, the model took the following form:

Equation 1

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

where,

Y was the dependent variable of credit debt measured on a scale of 1 through 5, as described in the operationalization of variables.

X_1 was immigrants, whose particular coding was decided during data analysis based on the breakdown of ethnicities present in the dataset. The analysis included the following ethnicities: Indian, Mixed Indian, Pakistani, Bangladeshi, Sri Lankan, Caribbean/West Indian, Mixed Caribbean/West Indian, North African, Black African, African Asian, Chinese, Far Eastern, Turkish, Middle Eastern/Iranian, and None of these.

X_2 was educational level, measured by the different categorical groups of education level and using the coded levels present in the BHPS raw data.

X_3 was household size, measured by the actual number of persons living in the household.

X_4 was number of years living in the United Kingdom as an immigrant, measured by the actual number of years the immigrant had been living in the United Kingdom; and

ε was the error term reflecting factors other than the above independent variables. β represented the associated parameters of each variable.

A significance level of 0.05 was used in this analysis. There was significant relationship if the *p* value was less than or equal to the level of significance value. In instances wherein the ANCOVA determined significant relationships between independent and dependent variables, a post hoc Tukey's honest significant difference test of multiple comparison was also conducted to further identify the relationships between independent and dependent variables.

Threats to Validity

External Validity

External validity refers to the generalizability of the study to larger populations in different settings. The most significant threat to external validity in this study was associated with the sampling process. Due to the nature of this research, the sampling choice was not that of the present researcher but of the researchers who conducted the study from which the data was taken, the BHPS. The BHPS was a multipurpose British population survey that provided a longitudinal perspective by following the same individual sample, which focused on households, over a period of time (Contoyannis, Jones, & Rice, 2004). The selection of the sample in the survey was based on the goal of selecting the cases required to carry out analysis of all groups. Despite the representative power of the survey itself, the external threat to the study remained due to the researcher's inability to modify the original sample in the survey.

There may have been systemic biases in the subjects of the BHPS, which presented a potential external threat to validity. The BHPS sampling methodology did not appear to have any systemic bias but there may still have been biases in the households that participated in the BHPS. It was therefore assumed that there were no significant biases in the individuals who gave consent, and therefore the dataset was not biased toward certain demographics due to those demographics systematically refusing consent. As the data used for this analysis were obtained from a third-party source, this study was limited to the data available within that source. For example, debt and financial data related to debt was only collected in 1996, 2001, and 2006 prior to the financial crisis in 2008; therefore, the findings from this study may have limited ability to be generalized to the time after the financial crisis. As the data were collected from a publicly available dataset and all subjects provided consent to be included in the dataset, there were no ethical concerns regarding the analysis.

Internal Validity

Internal validity is the ability of the experiment to identify causal relationships. Internal validity was therefore not applicable to the analysis in this study, as the study was correlational and did not seek to explore causal relationships. There could, however, have been issues concerning the validity of the findings related to statistical validity. Statistical validity was ensured by collecting reliable and valid data through the BHPS, assessing data assumptions before conducting statistical tests, and having an appropriate sample size.

Construct Validity

A number of factors may have influenced construct validity. The perception of participants to the original survey and their reaction to the questions constituted one threat to construct validity. Similarly, the self-described nature of some of the questions in the survey may have been influenced by participant bias. Participants may have had an inaccurate perception of their identity regarding their immigrant status, or there could have been ambiguity regarding classification, which may have affected the original survey and, as a result, may have affected the analysis of the present study. It was not possible to know fully what the expectations from the survey administrator were in terms of desirable answers to the original survey; the presence of any such expectations may also have had an influence on some of the components of the variables.

Summary

This chapter has laid out the methodological considerations that were involved in carrying out this research. Issues regarding the use of secondary data were addressed and the steps taken to reduce bias and replace missing data were highlighted. The source of the data and the variables of interest were discussed extensively, along with the sample selection, data collection, and data preparation processes. Tests including descriptive analysis, regression, correlation, t-test, and analysis of variance were conducted using SPSS to reject or support the research hypotheses. The variable scales were highlighted and the models predicting the dependent variables were discussed. The result of the data analysis will be presented in the next chapter.

Chapter 4: Results

The purpose of this quantitative cross-sectional correlational study was to examine whether there was an association between credit debt and the income gap among U.K. immigrants and British citizens through an analysis of data collected by the BHPS using the ABC model. The focus of the study was on examining the relationship between immigrant demographic factors and consumer debt. In this chapter, I present the results of the main study, and highlight the descriptive analysis, testing of the five hypotheses using correlational data, ANOVA, and ANCOVA, and the model testing based on regression analysis. The tested hypotheses were as follows:

H1. The independent variable of highest academic qualification is significantly related to the dependent variable of consumer debt between immigrants in the United Kingdom and British citizens in terms of income gap.

H2. The independent variable of ethnicity is significantly related to the dependent variable of consumer debt between immigrants in the United Kingdom and British citizens in terms of income gap.

H3. The independent variable of credit card debt is significantly related to the dependent variable of consumer debt between immigrants in the United Kingdom and British citizens in terms of income gap.

H4. The independent variable of household size is significantly related to the dependent variable of consumer debt between immigrants in the United Kingdom and British citizens in terms of income gap.

H5. The independent variable of immigrant status is significantly related to the dependent variable of credit debt between immigrants in the United Kingdom and British citizens in terms of income gap, when controlled for demographic factors.

Data Collection

The BHPS nationwide survey was separated into years, referred to as waves. The survey ran for 18 waves (1–18) from 1991 to 2008, which was denoted by A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, and R. The waves of interest in this study were Wave 5 (1995) denoted by E, Wave 10 (2000) denoted by J, and Wave 15 (2005) denoted by O. All variable names began with a single character wave identifier, replaced by a generic 'w', and the rest of the name was a mnemonic which attempted to provide some information as to the content of the variable. The second and third characters gave some indication of the general subject area of the variable (HH = household, IND = individual, RESP = respondent). I selected individual (INDRESP) and household (HHRESP) level data for the variables of ethnicity (wRACE), year came to the United Kingdom (wYR2UK), credit card debt (wDEBTC), highest academic qualification (wOQFACHI), household size (wHHSIZE), household net income (wHHNETI), and consumer debt (wDEBTY). The BHPS questions for each variable were extracted by their codes to ensure the same data point was selected in the different waves (E = Wave 5, J = Wave 10, and O = Wave 15). I then matched individuals to their household for data such as household size, consumer debt, and household net income available only at the household level using the wHID number for each respondent. The HID was the household ID at that wave, which was the identifier variable found in the household record as well as the

individual level data files. In total, I identified 22,569 unique individuals (Personal Identifiers, PIDs) in the dataset for Waves 5, 10, and 15. However, only 9,505 unique individuals had valid financial management data, i.e., credit and debt data, for the 3 years that constituted the scope of the research. The research sample comprised of residents in the United Kingdom who were over the age of 16, owned a credit card, and participated in the BHPS during the years 1995, 2000, and 2005. However, subjects without consumer debt and individuals with no ethnicity membership available were excluded from the analysis. The data extracted focused on individual responses and all subjects with valid debt data, regardless of the position they held in the household. After applying the selection criteria, the number of people with debt and ethnicity data that were included in the sample was 96 respondents in 1995, 277 respondents in 2000, and 118 in 2005.

Missing Data

I examined the pattern of missing data prior to the analysis. This analysis of the missing data served as a guide for the selection criteria for the population and sample considered in the analysis. Many of the questions regarding financial management: credit and debt, were of a sensitive nature, concerning topics which people may not have wished to reveal information about. In the BHPS, missing value codes were used to represent a variety of situations where respondents did not provide data in response to questions, or where a variable could not be computed.

> 0 represented ‘Not Mentioned’ or ‘None’ (unless it had some other meaning in the coding frame). Where respondents were asked which of a

list of items applied to them (for example, educational qualifications), those not selected were coded 0.

-1 represented a respondent response of ‘Don't Know’. In the questionnaire, these were defined as ‘8’, ‘98’, ‘998’ etc. (questions without such codes may have had this response as a result of interviewer write-in).

-2 represented a respondent refusal. In the questionnaire, these were defined as ‘9’, ‘99’, ‘999’ etc. (questions without such codes may have had this response as a result of interviewer write-in).

-3/ -4 were reserved for situations arising for particular questions where invalid data were given for other reasons, or data that did not fit into the frame of the main variable (e.g., a self-employed person made a loss, the last payment was a refund). The Value Label was used to indicate the particular situation.

-7 was used on individual respondent records AINDRESP, BINDRESP etc. to indicate that the respondent was interviewed by proxy (or from Wave 3, by telephone) and therefore the relevant question was not asked, or the derived variable could not be computed.

-8 represented data missing because it was not applicable to that respondent, or because of routing from some previous question.

-9 represented data missing in error, with no other explanation, or derived variables which could not be computed.

Statistical Tests

I carried out the analysis of the data extracted from the BHPS, and the testing of the hypothesis and models, using SPSS, (IBM Corp. Released 2011. IBM SPSS Statistics for Windows, Version 20.0. Armonk, NY: IBM Corp.). In these analyses, I included descriptive statistics, correlation, ANOVA, regression, and analysis of covariance. Below, I will describe the statistical tests.

Eta Correlation Test

The Eta Correlation test is used to determine if a relationship exists between an interval variable and a categorical variable. To run an Eta Correlation, ANOVA is first run to determine if there is a significant difference between the group's averages. With significance determined through the *F* ratio, an Eta correlation can be calculated to determine the percentage of variation in the dependent variable that can be explained by the independent variable.

Analysis of Variance (ANOVA)

The ANOVA is used to determine if there is any difference between the means of two or more independent groups and a continuous dependent variable. Most importantly, it helps to determine whether the difference between the two or more variables of interest at a particular time is statistically significant. In this study, I used ANOVA to determine if there was any difference in consumer debt in relation to household size, credit card debt, ethnicity, highest academic qualifications, and year came to Britain for 1995, 2000, and 2005.

Analysis of Covariance (ANCOVA)

ANCOVA is the extension of ANOVA to incorporate a covariate variable. This covariate is linearly related to the dependent variable and its addition into the analysis is intended to increase the test's ability to detect differences between groups of the independent variable. In this study, I used ANCOVA to determine whether there were any statistically significant differences between the adjusted population means of two or more independent (unrelated) groups, to determine whether consumer debt differed between immigrants and British citizens when controlling for annual income as the covariate. In the context of this research, immigrants as a variable involved multiple demographic factors, such as household size, educational attainment, ethnicity, and credit card debt. These factors were included within the variable of immigrants in the ABC model.

Hierarchical Regression Analysis

I then carried out a hierarchical regression analysis to determine the proportion of variance in the indebtedness of participants that was accounted for. To achieve this, I added new independent variables to variables in several blocks of data for the years 1995, 2000, and 2005. The control variable was annual household income, which comprises Model 1. I added credit card debt owed to Model 1 to form Model 2; added highest academic qualification to Model 2 to form Model 3; added household size to Model 3 to form Model 4; added ethnicity to Model 4 to form Model 5; and added immigrant (year came to Britain) to Model 5 to form Model 6, which was the full model for the purpose of this study.

Study Results

Descriptive Statistics

Descriptive statistics for 1995, 2000, and 2005 datasets are presented in Tables 4.1, 4.2, 4.3, and 4.4, respectively. These tables describe the sample size, minimum, maximum, mean, and standard deviation of the variables used in the study.

Table 4.1

Descriptive Statistics for Wave 5 (1995) Mean

	N	Min.	Max.	Mean	Std. Dev.	Skewness	Kurtosis
Owe money - how much	95	0	10,000	1,897.92	2,171.518	1.768	2.825
Highest academic qualification	95	1	7	4.19	1.553	-0.149	-0.186
Ethnicity	95	1	7	1.07	0.623	9.388	89.807
Owe money - credit card(s)	95	0	1	0.6	0.492	-0.415	-1.868
Immigrants (came to Britain)	95	1	2	1.03	0.176	5.444	28.226
Household size category	95	1	3	1.59	0.644	0.634	-0.562
Annual hhousehold net Iincome	86	752.04	11,481.24	5,084.75	2150.333	0.803	1.112

Descriptive statistics for the mean 1995 dataset was conducted and only two data outside the expected limits were found (see Table 4.1). I then ran tests for skewness and kurtosis were run. George and Mallery (2016) stated that skewness and kurtosis values between +/- 1.0 are considered to be excellent while values between +/- 2.0 are acceptable. The only items beyond this limit for both skewness and kurtosis were total amount owed, ethnicity, and immigrants, but the total amount owed did not exceed the limits in the 2000 and 2005 dataset and so the variable was retained.

Table 4.2

Descriptive Statistics for Wave 10 (2000) Mean

	N	Min.	Max.	Mean	Std. Dev.	Skewness	Kurtosis
Owe money - how much	276	10	18,000	4,016.18	4,008.75	1.374	1.715
Highest academic qualification	275	1	7	3.83	1.573	0.246	-0.428
Ethnicity	276	1	9	1.09	0.743	9.601	96.212
Owe money - credit card(s)	276	0	1	0.57	0.496	-0.28	-1.936
Immigrant status	275	1	2	1.05	0.22	4.109	14.989
Household ssize ccategory	276	1	3	2.27	0.56	-0.013	-0.455
Annual hhousehold net income	229	662.16	24,927.84	5,844.55	3,387.90	2.212	9.741

Descriptive statistics for the mean 2000 dataset were calculated and, once again, two data points outside expected limits were found (see Table 4.2). I again ran tests for skewness and kurtosis. Not all items were below George and Mallery's (2016) limit of +/- 2.0. The only items beyond this limit for both skewness and kurtosis were ethnicity and immigrants. I also produced appropriate charts and plots to test the data for linearity, homoscedasticity, and normality of errors.

Table 4.3

Descriptive Statistics for Wave 15 (2005) Mean

	N	Min.	Max.	Mean	Std. Dev	Skewness	Kurtosis
Owe money - how much	116	50	30,000	8,169.34	6,632.36	0.965	0.552
Highest academic qualification	116	1	7	3.5	1.541	0.61	-0.165
Ethnicity	116	1	9	1.26	1.259	4.953	24.081
Owe money - credit card(s)	116	0	1	0.49	0.502	0.035	-2.034
Household ssize ccategory	116	1	3	1.63	0.583	0.284	-0.696
Immigrant sTATUS	116	1	2	1.09	0.282	2.987	7.046

Annual hhousehold net Iincome	105	461.4	18,054.36	7,601.95	3,491.14	0.472	0.124

The descriptive statistics for the mean 2005 dataset once again had two data points outside the expected limits (see Table 4.3). I again ran tests for skewness and kurtosis. Not all items were below George and Mallery's (2016) limit of +/- 2.0. The only items beyond this limit for both skewness and kurtosis were again ethnicity and immigrants. I also produced appropriate charts and plots to test the data for linearity, homoscedasticity, and normality of errors. The lack of normality in the ethnicity and immigrant data for the 3 years was a result of low diversity in the data. This did not necessarily influence the results of the analysis as the tests used (ANOVA and ANCOVA) are relatively robust to deviations from normality.

Table 4.4

Distribution of Consumer Debt by Study Sample Characteristics

	Consumer Debt (Mean)					
	1995		**2000**		**2005**	
Characteristics	**Mean**	**Std. Dev.**	**Mean**	**Std. Dev.**	**Mean**	**Std. Dev.**
Household ssize						
1 to 2 people	2,105.26	2,374.34	3,915.63	4,717.05	7,929.59	6,199.24
3 to 5 people	1,910.62	2,057.54	3,725.61	4,148.74	8,272.02	7,189.45
Greater than 5	616.25	723.03	4,582.93	3,568.34	9,083.33	4,565.27
Owe credit card debt						
Not mmentioned	1,926.18	2,043.82	3,737.33	3,468.28	7,560.76	5,434.42
Credit card	1,879.07	2,270.34	4,227.55	4,373.27	8,799.26	7,677.96
Highest aacademic qual.						
Higher degree	3,380.00	2,122.97	4,488.46	4,007.92	8,125.00	2,594.06
First ddegree	2,638.69	2,234.66	4,633.61	4,111.86	9,843.59	7,525.28
HND, HNC, tteaching	1,300.00	1,812.92	3,478.85	3,435.35	5,129.17	3,748.60
A level	1,707.12	2,026.32	4,171.69	3,161.13	8,571.66	6,985.75
O level	2,029.04	2,562.34	3,517.87	4,723.34	6,869.71	5,796.78
CSE	1,655.00	1,184.94	4,092.00	6,413.29	-	-
None of these	781.50	1,361.62	3,474.72	4,994.82	5,877.78	5,399.02

Ethnicity/race						
Caucasian	1,916.85	2,186.28	4,031.98	4,039.12	8,268.41	6,583.74
Black–African	-	-	-	-	-	-
Black–Carib.	35.00	-	1,500.00	-	-	-
Black–other	-	-	5,000.00	-	-	-
Indian	-	-	4,800.00	-	6,000.00	-
Pakistani	-	-	-	-	50.00	-
Bangladeshi	2,000.00	-	-	-	2,300.00	-
Chinese	-	-	-	-	1,500.00	-
Other ethnic group	-	-	2,250.00	353.55	20,000.00	-
Immigration status						
Born in U.K.	1,775.02	2,039.69	3,979.57	4,009.96	8,430.52	6,657.80
Came to the U.K.	5,666.67	3,214.55	4,735.71	4,212.18	5,400.80	5,967.55

The results in Table 4.4 present the descriptive characteristics of the sample for 1995, 2000, and 2005 (household size, credit card debt, academic qualification, ethnicity, and immigrant status) by the magnitude of consumer debt. Among the sample in 1995, households with one to two people had more consumer debt (£2,105). Those with a higher degree had accumulated more debt (£3,380) than those with other academic qualifications. Immigrants (those who had come to the United Kingdom) were more indebted (£5,666) than those who had been born in the United Kingdom. Participants who did not mention that they had credit card debt had slightly more consumer debt (£1,926) than those that stated they had credit card debt (£1,879). For the Wave 10 (year 2000) dataset, households with more than five people had the highest average consumer debt of approximately £4,582 compared to their counterparts with one to five people in the household. However, within the sample, those who reported having credit card debt had more consumer debt (£4,227) than those who did not mention having credit card debt (£3,737). Contrary to the result for 1995, those with a first degree had more consumer

debt (£4,633) than their counterparts, although immigrants also had more debt (£4,735) than those participants born in the United Kingdom. A similar pattern was observed with the sample for 2005: the household size with the highest amount debt was those with more than five people (£9,083); those who reported having credit card debt also had more debt (£8,799); participants with first degrees also had more consumer debt (£9,843) than those with other qualifications. However, those who had been born in the United Kingdom had a lot more debt (£8,430) than immigrants (£5,400) in 2005.

Across the 3 years (1995, 2000, and 2005), the debt level of the consumers had more than doubled in 2005 compared to 1995. Households with one to two people reported an average debt of £7,929 compared to £2,105 in 1995, and £3,915 in 2000. The debt reported by Caucasian participants more than tripled over a period of 10 years, from an average of £1,916 in 1995 to £4,031 in 2000, and £8,268 in 2005. This trend was found to be the same among the other sample characteristics presented in Table 3.4.

Hypotheses Testing

In this section, I test the five hypotheses guiding this research using Eta Correlation, ANOVA, and ANCOVA.

- H1: The independent variable of highest academic qualification is significantly related to the dependent variable of consumer debt between immigrants in the United Kingdom and British citizens in terms of income gap.
- H2: The independent variable of ethnicity is significantly related to the dependent variable of consumer debt between immigrants in the United Kingdom and British citizens in terms of income gap.

- H3: The independent variable of credit card debt is significantly related to the dependent variable of consumer debt between immigrants in the United Kingdom and British citizens in terms of income gap.
- H4: The independent variable of household size is significantly related to the dependent variable of consumer debt between immigrants in the United Kingdom and British citizens in terms of income gap.
- H5: The independent variable of immigrant status is significantly related to the dependent variable of credit debt between immigrants in the United Kingdom and British citizens in terms of income gap, when controlled for demographic factors.

Correlations with Consumer Debt

The table below presents the relationship between independent variables (highest academic qualification, ethnicity, credit card debt, immigrant status, and household size) and consumer debt in 1995, 2000, 2005. Based on the results shown in Table 4.5, the independent variable, highest academic qualification, demonstrated a weak positive relationship with consumer debt in 1995 (r = 0.276), 2000 (r = 0.113), and 2005 (r = 0.244). The independent variable of ethnicity also showed a weak positive relationship with consumer debt in 1995 (r = 0.089), 2000 (r = 0.057), and 2005 (r = 0.240). Finally, the independent variable of credit card debt also showed a weak positive relationship with consumer debt in 1995 (r = 0.011), 2000 (r = 0.061), and 2005 (r = 0.094). Regarding immigrant status, the results showed a moderate significant positive relationship with consumer debt in 1995 (r = 0.315), but a weak positive relationship with consumer debt in 2000 (r = 0.041) and 2005 (r = 0.129). The independent variable

of household debt showed a weak positive relationship with consumer debt in 1995 (r = 0.185), 2000 (r = 0.099), and 2005 (r = 0.041).

Table 4.5

Correlations Between the Independent Variables and Consumer Debt

Dependent variable: Consumer debt			
Independent variable	**1995**	**2000**	**2005**
Highest academic qualification	0.276	0.113	0.244
Ethnicity	0.089	0.057	0.24
Credit card debt	0.011	0.061	0.094
Immigrant status	0.315**	0.041	0.129
Household size	0.185	0.099	0.041
N	95	276	116
****Correlation is significant at 0.05 level**			

Analysis of Variance (ANOVA)

ANOVA is used to determine whether there are any statistically significant differences between the means of two or more independent groups. For this study, I considered it to be the best method to test whether consumer debt differed based on the independent variables (credit card debt, highest academic qualification, household size, ethnicity, and immigrant status) across three periods: 1995, 2000, and 2005. I also conducted a comparative analysis to evaluate various quantitative variables across the years. ANOVA not only examines the differences between the independent groups, it also helps to determine where specifically the group differences lie.

Assumption Testing

I conducted a one-way ANOVA test to determine whether consumer debt was different for groups with different household sizes (three groups), credit card debt (two groups), ethnicity (nine groups, but the highest distribution was 6 and the lowest 3, due to unavailable data), highest academic qualification (seven groups), and immigrant status (two groups) in 1995, 2000, and 2005. The results of the assumption testing were similar across the independent variables for 1995, 2000, and 2005. There were no outliers among most of the variables, as assessed by boxplot. Extreme outliers were removed from the data after careful assessment to ensure they did not affect the data, and others were left alone in cases where similar data points were not flagged as outliers. The data was not normally distributed for all the groups within some variables but was normal for some groups in other variables, as assessed by the Shapiro-Wilk test ($p < .05$). However, the one-way ANOVA was still used as it is considered 'robust' to violations of normality; some violations of this assumption can be tolerated with the test still providing valid results (Blanca et al., 2017). The results of Levene's test of homogeneity of variances ($p > 0.05$) showed that there was homogeneity of variances.

ANOVA Results.

One-way ANOVA was conducted to determine whether consumer debt differed significantly based on credit card debt, highest academic qualification, household size, ethnicity, and immigrant status in 1995; the results are shown in Table 4.6. For highest qualification, the results showed that the differences between the qualification groups (higher degree; first degree; HND, HNC, teaching; A level; O level; CSE; and none) with

regards to consumer debt was not statistically significant, $F(6, 93) = 1.414$; $p = 0.218$. This result supported the conclusion from the correlation test in that there was no statistically significant relationship between the highest academic qualification group and consumer debt, hence, the hypothesis could be rejected. For ethnicity, the result also showed that the differences between the ethnicities (Caucasian, Black–Carib, Bangladeshi) with regards to consumer debt were not statistically significant, $F(2, 93) = 0.392$; $p = 0.677$. For credit card debt, the results showed that the differences between the groups (not mentioned, credit card debt) with regards to consumer debt were not statistically significant, $F(1, 93) = 0.204$; $p = 0.652$; hence, the hypothesis could be rejected. For immigrant status, the results indicated that consumer debt was statistically significantly different between those born in the United Kingdom and those who had come to live in the United Kingdom, $F(1, 93) = 12.805$; $p < 0.05$. This result also supported the conclusion from the correlation test which showed that there was a statistically significant relationship between immigrant status and consumer debt; hence, the hypothesis can be accepted. For household size, the result showed that the differences between the groups (1–2 people, 3–5 people, and greater than five people) with regards to consumer debt was not statistically significant, $F(2, 93) = 1.562$; $p = 0.215$; hence, the hypothesis could be rejected.

Table 4.6

ANOVA Test of Group Differences for 1995 Data

Dependent Variable: Consumer Debt

Independent Variable	Sum of Squares	Df	Mean Square	F	Sig.

Highest academic qualification	Between Groups	33490831.56	6	5581805.26	1.414	0.218
	Within Groups	343423071.2	87	3947391.624		
	Total	376913902.8	93			
Ethnicity	Between Groups	3219619.819	2	1609809.91	0.392	0.677
	Within Groups	373694283	91	4106530.582		
	Total	376913902.8	93			
Credit card debt	Between Groups	835674.259	1	835674.259	0.204	0.652
	Within Groups	376078228.6	92	4087806.832		
	Total	376913902.8	93			
Immigrant status	Between Groups	46051491.11	1	46051491.11	12.805	**0.001**
	Within Groups	330862411.7	92	3596330.562		
	Total	376913902.8	93			
Household size	Between Groups	12508135.22	2	6254067.608	1.562	0.215
	Within Groups	364405767.6	91	4004458.985		
	Total	376913902.8	93			

Table 4.6 above shows the results of a one-way ANOVA conducted to determine whether consumer debt differed significantly based on credit card debt, highest academic qualification, household size, ethnicity, and immigrant status in 2000. For highest academic qualification, the results showed that the differences between the qualification groups (higher degree; first degree; HND, HNC, teaching; A level; O level; CSE; and none) with regards to consumer debt were not statistically significant, $F(6, 274) = 0.581$; $p = 0.745$. This finding supported the conclusion from the correlation test there was no statistically significant relationship between the highest academic qualification and consumer debt; hence, the hypothesis could be rejected. For ethnicity, the results also showed that the differences between the ethnicities (Caucasian, Black–Carib., Black–Other, Indian, Other ethnic group) with regards to consumer debt were not statistically significant, $F(4, 275) = 0.219$; $p = 0.928$. This finding also showed that there was no statistically significant relationship between ethnicity and consumer debt; hence, the

hypothesis could be rejected. For credit card debt, the results showed that the differences between the groups (not mentioned, credit card debt) with regards to consumer debt were not statistically significant, Welch's $F(1, 275) = 1.078$; $p = 0.3$. This finding also showed that there was no statistically significant relationship between having credit card debt and consumer debt; hence, I could also reject this hypothesis. For immigrant status, the results showed that the differences between the groups (born in the United Kingdom, came to live in the United Kingdom) with regards to consumer debt were not statistically significant, $F(1, 274) = 0.47$; $p = 0.494$. This finding showed that there was no statistically significant relationship between immigrant status and consumer debt; hence, I could again reject this hypothesis. For household size, the results showed that the differences between the groups (1–2 people, 3–5 people, and greater than five people) with regards to consumer debt were not statistically significant, $F(2, 275) = 1.355$; $p = 0.26$. This finding showed that there was no statistically significant relationship between household size and consumer debt; hence, this hypothesis could be rejected.

Table 4.7
ANOVA Test of Group Differences for 2000 Data
Dependent Variable: Consumer Debt

Independent Variable		Sum of Squares	Df	Mean Square	F	Sig.
Highest academic qualification	Between Groups	56572751.53	6	9428791.922	0.581	0.745
	Within Groups	4347296524	268	16221255.69		
	Total	4403869275	274			
Ethnicity	Between Groups	14219886.67	4	3554971.667	0.219	0.928
	Within Groups	4405041661	271	16254766.28		
	Total	4419261548	275			
Credit card debt	Between Groups	16267456.47	1	16267456.47	1.078	0.3
	Within Groups	4402994091	274	16069321.5		

	Total	4419261548	275			
Immigrant status	Between Groups	7597113.015	1	7597113.015	0.47	0.494
	Within Groups	4411397019	273	16158963.44		
	Total	4418994132	274			
Household size	Between Groups	43424285.63	2	21712142.82	1.355	0.26
	Within Groups	4375837262	273	16028707.92		
	Total	4419261548	275			

Table 4.7 presents the results of a one-way ANOVA conducted to determine whether consumer debt differed significantly based on credit card debt, highest academic qualification, household size, ethnicity, and immigrant status, in 2005. For highest academic qualification, the results showed that the differences between the qualification groups (higher degree; first degree; HND, HNC, teaching; A level; O level; CSE; and none) with regards to consumer debt were not statistically significant, Welch's $F(5, 115) = 1.921$; $p = 0.127$; hence, the hypothesis was rejected. For ethnicity, the results also showed that the differences between the ethnicities (Caucasian, Black–Carib., Black–Other, Indian, Other ethnic group) with regards to consumer debt were not statistically significant, $F(5, 115) = 1.341$; $p = 0.252$; hence, the hypothesis was rejected. For credit card debt, the results from the table showed that the differences between the groups (not mentioned, credit card debt) with regards to consumer debt were not statistically significant, Welch's $F(1, 115) = 0.999$; $p = 0.32$; hence, the hypothesis was rejected. For immigrant status, the results showed that the differences between the groups (born in the United Kingdom, came to live in the United Kingdom) with regards to consumer debt were not statistically significant, $F(1, 115) = 1.922$; $p = 0.168$; hence, the hypothesis was rejected. For household size, the results showed that the differences between the groups (1–2 people, 3–5 people, and greater than five people) with regards to consumer debt

were not statistically significant, $F(2, 1155) = 0.095$; $p = 0.91$; hence, the hypothesis was rejected.

Table 4.8

ANOVA Test of Group Differences for 2005 Data
Dependent Variable: Consumer Debt

Independent Variable		Sum of Squares	Df	Mean Square	F	Sig.
Highest academic qualification	Between Groups	301881301.8	5	60376260.36	1.921	0.127
	Within Groups	4756758916	110	43243262.87		
	Total	5058640218	115			
Ethnicity	Between Groups	290612831.1	5	58122566.23	1.341	0.252
	Within Groups	4768027387	110	43345703.52		
	Total	5058640218	115			
Credit card debt	Between Groups	44469394.16	1	44469394.16	0.999	0.32
	Within Groups	5014170824	114	43983954.59		
	Total	5058640218	115			
Immigrant status	Between Groups	83878863.83	1	83878863.83	1.922	0.168
	Within Groups	4974761354	114	43638257.49		
	Total	5058640218	115			
Household size	Between Groups	8471871.734	2	4235935.867	0.095	0.91
	Within Groups	5050168346	113	44691755.28		
	Total	5058640218	115			

Analysis of Covariance (ANCOVA)

ANCOVA is an extension of ANOVA to incorporate a covariate variable that is linearly related to the dependent variable; its addition into the analysis is intended to increase the test's ability to detect differences between groups of the independent variable. For this study, ANCOVA was carried out to determine whether consumer debt differed between immigrants and British citizens while controlling for annual income. In

the context of this research, immigrants as a variable involved multiple demographic factors, such as household size, educational attainment, ethnicity, and credit card debt. These factors were part of the immigrant variable within the ABC model. The main purpose of running the one-way ANCOVA was to establish whether there were any statistically significant group differences for consumer debt after adjusting for the annual household net income.

Assumption Testing.

The one-way ANCOVA test was conducted to determine if consumer debt was different for groups with different household sizes (three groups), credit card debt (two groups), ethnicity (nine groups, but the highest distribution was 6 and the lowest 3, due to unavailable data), highest academic qualification (seven groups), and immigrant status (two groups) after controlling for annual household income as the covariate, in 1995, 2000, and 2005. The results of the assumption testing were similar across the independent variables for 1995, 2000, and 2005. There were no outliers among most of the variables, as assessed by boxplot. Extreme cases of outliers were removed from the data after careful assessment to ensure they did not affect the data; others were left alone in cases where similar data points were not flagged as outliers. The data was not normally distributed for all the groups within some variables but was normal for some groups in other variables, as assessed by the Shapiro-Wilk test ($p < .05$). However, the one-way ANOVA was still used as it is considered ‘robust’ to violations of normality, where some violation of this assumption can be tolerated with the test still providing valid results

(Blanca et al., 2017). The results of Levene's test of homogeneity of variances showed that there was homogeneity of variances ($p > 0.05$).

ANCOVA Result.

The results presented in Table 4.9 show whether there was an overall statistically significant difference in the total amount owed (consumer debt) between the different groups of independent variables (credit card debt, highest academic qualification, household size, ethnicity, and immigrant status) in 1995, once their means had been adjusted for annual household income. For highest academic qualification, the results showed that, after adjustment for annual household net income, there was no statistically significant difference in the total amount owed (consumer debt) between the different qualification groups (higher degree; first degree; HND, HNC, teaching; A level; O level; CSE; and none), $F(6, 78) = 0.940$; $p = 0.471$; partial $\eta^2 = 0.067$. For ethnicity, the results showed that, after adjustment for annual household net income, there was no statistically significant difference in the total amount owed (consumer debt) between the ethnicities (Caucasian, Black–Carib., Bangladeshi), $F(2, 82) = 0.372$; $p = 0.691$; partial $\eta^2 = 0.009$.

In terms of credit card debt, the results showed that, after adjustment for annual household net income, there was no statistically significant difference in the total amount owed (consumer debt) between the groups (not mentioned, credit card debt), $F(1, 83) = 0.173$; $p = 0.678$; partial $\eta^2 = 0.002$. For immigrant status, the results showed that, after adjustment for annual household net income, there was a statistically significant difference in the total amount owed (consumer debt) between the immigrant groups (born in the United Kingdom, came to live in the United Kingdom), $F(1, 83) = 4.148$; $p < 0.05$;

partial $\eta^2 = 0.048$. Due to the statistical significance, follow-up tests were conducted to evaluate pairwise differences among the adjusted means for immigrant status. The Bonferroni procedure was used to control for Type I error across the two pairwise comparisons. The results showed that immigrants who had come to the United Kingdom (Mean = $4,987.03, SE = $1,530.07) had statistically significantly higher consumer debt while controlling for the effect of their annual household income, than those who had been born in the United Kingdom (Mean = $1,832.86, SE = $233.29). The effect size for these significant adjusted mean differences was 0.048. For household size, the results showed that, after adjustment for annual household net income, there was no statistically significant difference in the total amount owed (consumer debt) between the groups (1–2 people, 3–5 people, and greater than five people), F (2, 82) = 1.397; $p = 0.253$; partial $\eta^2 = 0.033$.

Table 4.9

ANCOVA Test of Group Differences for 1995 Data
Dependent Variable: Consumer Debt

	Tests of Between-Subjects Effects						
	Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
1	Highest academic qualification	26857988.88	6	4476331.481	0.94	0.471	0.067
	Error	371341925.8	78	4760793.92			
	Total	711350088	86				
2	Ethnicity	3577758.045	2	1788879.023	0.372	0.691	0.009
	Error	394622156.6	82	4812465.324			
	Total	711350088	86				
3	Credit card debt	829599.51	1	829599.51	0.173	0.678	0.002
	Error	397370315.1	83	4787594.158			
	Total	711350088	86				
4	Immigrants	18954821.82	1	18954821.82	4.148	**0.045**	0.048
	Error	379245092.8	83	4569217.986			

	Total	711350088	86				
5	Household size	13124305.37	2	6562152.686	1.397	0.253	0.033
	Error	385075609.3	82	4696044.016			
	Total	711350088	86				

The results presented in Table 4.9 show whether there was an overall statistically significant difference in the total amount owed (consumer debt) between the different groups of the independent variables (credit card debt, highest academic qualification, household size, ethnicity, and immigrant status) in 2000, once their means had been adjusted for annual household income. For highest academic qualification, the results showed that ,after adjustment for annual household net income, there was no statistically significant difference in the total amount owed (consumer debt) between the qualification groups (higher degree; first degree; HND, HNC, teaching; A level; O level; CSE; and none), $F(6, 221) = 0.572$; $p = 0.752$; partial $\eta^2 = 0.015$. For ethnicity, the results showed that, after adjustment for annual household net income, there was no statistically significant difference in the total amount owed (consumer debt) between the ethnicities (Caucasian Black–Carib., Black–Other, Indian, Other ethnic group), $F(3, 224) = 0.246$; $p = 0.864$; partial $\eta^2 = 0.003$.

In terms of credit card debt, the results showed that, after adjustment for annual household net income, there was no statistically significant difference in the total amount owed (consumer debt) between the groups (not mentioned, credit card debt), $F(1, 226) = 0.713$; $p = 0.399$; partial $\eta^2 = 0.003$. For immigrant status, the results again showed that, after adjustment for annual household net income, there was no statistically significant difference in the total amount owed (consumer debt) between the groups (born in the

United Kingdom, came to live in the United Kingdom), $F(1, 225) = 0.505$; $p = 0.478$; partial $\eta^2 = 0.002$. For household size, the results showed that, after adjustment for annual household net income, there was no statistically significant difference in the total amount owed (consumer debt) between the groups (1–2 people, 3–5 people, and greater than five people), $F(2, 225) = 0.207$; $p = 0.813$; partial $\eta^2 = 0.002$.

Table 4.10
ANCOVA Test of Group Differences, Mean 2000 Data
Dependent Variable: Consumer Debt

Tests of Between-Subjects Effects

	Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
1	Highest academic qualification	59889504.17	6	9981584.029	0.572	0.752	0.015
	Error	3855315932	221	17444868.47			
	Total	7470212245	229				
2	Ethnicity	12845461.24	3	4281820.414	0.246	0.864	0.003
	Error	3902359975	224	17421249.89			
	Total	7470212245	229				
3	Credit card debt	12314000.48	1	12314000.48	0.713	0.399	0.003
	Error	3902891436	226	17269431.13			
	Total	7470212245	229				
4	Immigrants	8774345.117	1	8774345.117	0.505	0.478	0.002
	Error	3906383655	225	17361705.13			
	Total	7457962245	228				
5	Household size	7183391.974	2	3591695.987	0.207	0.813	0.002
	Error	3908022044	225	17368986.86			
	Total	7470212245	229				

The results presented in Table 4.10 show whether there was an overall statistically significant difference in the total amount owed (consumer debt) between the different

groups of the independent variables (credit card debt, highest academic qualification, household size, ethnicity, and immigrant status) in 2005 once their means had been adjusted for annual household income. For highest academic qualification, the results showed that, after adjustment for annual household net income, there was no statistically significant difference in the total amount owed (consumer debt) between the qualification groups (higher degree; first degree; HND, HNC, teaching; A level; O level; CSE; and none), $F(5, 98) = 1.754$; $p = 0.13$; partial $\eta^2 = 0.082$. For ethnicity, the results showed that, after adjustment for annual household net income, there was no statistically significant difference in the total amount owed (consumer debt) between the ethnicities (Caucasian, Black–Carib., Black–Other, Indian, Other ethnic group), $F(4, 99) = 1.47$; $p = 0.217$; partial $\eta^2 = 0.056$. For credit card debt, the results again showed that, after adjustment for annual household net income, there was no statistically significant difference in the total amount owed (consumer debt) between the groups (not mentioned, credit card debt), $F(1, 102) = 1.58$; $p = 0.212$; partial $\eta^2 = 0.015$. For household size, the results showed that, after adjustment for annual household net income, there was no statistically significant difference in the total amount owed (consumer debt) between the groups (1–2 people, 3–5 people, and greater than five people), $F(2, 101) = 0.496$; $p = 0.611$; partial $\eta^2 = 0.01$. For immigrant status, the results showed that, after adjustment for annual household net income, there was no statistically significant difference in the total amount owed (consumer debt) between the groups (born in the United Kingdom, came to live in the United Kingdom), $F(1, 102) = 1.185$; $p = 0.279$; partial $\eta^2 = 0.011$

Table 4.11

ANCOVA Test of Group Differences for 2005 Data
Dependent Variable: Consumer Debt

	Tests of Between-Subjects Effects						
	Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
1	Highest academic qualification	384419926.7	5	76883985.33	1.754	0.13	0.082
	Error	4296349463	98	43840300.65			
	Total	12106144489	105				
2	Ethnicity	262403656	4	65600914.01	1.47	0.217	0.056
	Error	4418365734	99	44629956.91			
	Total	12106144489	105				
3	Credit card debt	71395758.89	1	71395758.89	1.58	0.212	0.015
	Error	4609373631	102	45189937.56			
	Total	12106144489	105				
4	Household size	45507836.6	2	22753918.3	0.496	0.611	0.01
	Error	4635261553	101	45893678.75			
	Total	12106144489	105				
5	Immigrants	53769541.55	1	53769541.55	1.185	0.279	0.011
	Error	4626999848	102	45362743.61			
	Total	12106144489	105				

Summary: Overview of Hypotheses Testing

The table below summarizes the testing of the hypotheses. A tick indicates that the hypothesis was supported and a cross indicates that it was rejected. The table shows that one of the tested hypotheses was supported.

Table 4.12
Summary of the Results of the Hypotheses Testing

Study Hypothesis	**1995**	**2000**	**2005**
H1: The independent variable of highest academic qualification is significantly related to the dependent	✘	✘	✘

variable of consumer debt between immigrants in the United Kingdom and British citizens in terms of income gap.			
H2: The independent variable of ethnicity is significantly related to the dependent variable of consumer debt between immigrants in the United Kingdom and British citizens in terms of income gap.	✗	✗	✗
H3: The independent variable of credit card debt is significantly related to the dependent variable of consumer debt between immigrants in the United Kingdom and British citizens in terms of income gap.	✗	✗	✗
H4: The independent variable of household size is significantly related to the dependent variable of consumer debt between immigrants in the United Kingdom and British citizens in terms of income gap.	✗	✗	✗
H5: The independent variable of immigrant status is significantly related to the dependent variable of credit debt between immigrants in the United Kingdom and British citizens in terms of income gap, when controlled for demographic factors.	✓	✗	✗

Model Testing

To determine the proportion of the variation in the dependent variable that was explained by the addition of new independent variables, I carried out a hierarchical regression analysis. In this case, this was the proportion of variance in the indebtedness of participants that was accounted for by the addition of income, credit card debt, highest academic qualification, household size, different ethnicities, and immigrant status.

The results shown in Table 4.13 below reflect the six regression models used, labeled Models 1, 2, 3, 4, 5, and 6 (in the Model column) for 1995. The first model (Model 1) contained the control variable (Annual Income). In Model 2, credit card debt was added to Model 1. In Model 3, highest academic qualification was added to Model 2. In Model 4, household size was added to Model 3. In Model 5, ethnicity was added to Model 4. Finally, in Model 6, (also known as the Complete Model) the immigrant status variable was added to Model 5.

As Model 1 was the starting model and reflected the control variables, when compared to a model with no independent variables, the change in R^2 (R square change) was the same as R^2. The result for this model was not statistically significant, $p > 0.05$. The addition of credit card debt variables (1–2) to the prediction of consumer debt (Model 2) led to a non-statistically significant increase of 0.002 in R^2, $p > 0.05$. In other words, credit card debt did not contribute significantly to the prediction of consumer debt in 1995. The addition of highest academic qualification (1–7) to the prediction of consumer debt (Model 3) led to a statistically significant increase of 0.046 in R^2, $p < 0.05$. This suggested that academic qualification contributed significantly to the prediction of consumer debt in 1995. The addition of household size (1–3) to the prediction of consumer debt (Model 4) led to a non-statistically significant increase of 0.023 in R^2, $p > 0.05$. This showed that household size did not contribute significantly to the prediction of consumer debt in 1995. The addition of ethnicity (1–9) to the prediction of consumer debt (Model 5) led to a non-statistically significant increase of 0.002 in R^2, *p*

>0.05. This meant that the ethnicity variable did not contribute significantly to the prediction of consumer debt in 1995.

Finally, the addition of the immigrant status variable (1–2) to the prediction of consumer debt (Model 6) led to a statistically significant increase of 0.092 in R^2, p <0.05. This indicated that the immigrant variable contributed significantly to the prediction of consumer debt in 1995. The result in the R^2 column shows that the control variable (annual household net income) contributed 0.2% of the variance, credit card debt 0.4%, highest academic qualification 5%, household size 7.3%, and ethnicity/race 7.5%; and immigrant status explained a total of 16.7% of the variance. The interaction of the independent variables (academic qualification and immigrants) demonstrated a significant contribution to the model, as indicated by the Sig F change value (0.04 and 0.004). This result also suggested that the hierarchical regression model in Table 4.12 accounted for 16.7% of the total variance in the consumer debt of U.K. residents; when the variance explained by the control variable was subtracted from this, a total of 16.5% was accounted for by the independent variables.

Table 4.13
Summary of Hierarchical Regression Model for 1995 Data
Dependent Variable: Consumer Debt

Model Summary							
Model	R	R Square	R Square Change	F Change	df1	df2	Sig. F Change
1	.041a	0.002	0.002	0.139	1	84	0.71
2	.061b	0.004	0.002	0.173	1	83	0.678
3	.224c	0.05	0.046	4.014	1	82	**0.048**
4	.271d	0.073	0.023	2.012	1	81	0.16
5	.274e	0.075	0.002	0.136	1	80	0.713

6	.409f	0.167	0.092	8.763	1	79	**0.004**

a Predictors: (Constant), Annual household net income
b Predictors: (Constant), Annual household net income, Owe money - credit card(s)
c Predictors: (Constant), Annual hhousehold net iincome, Owe money - credit card(s), Highest academic qualification
d Predictors: (Constant), Annual hhousehold net iincome, Owe money - credit card(s), Highest academic qualification, Household size category
e Predictors: (Constant), Annual household net iincome, Owe money - credit card(s), Highest academic qualification, Household size category, Ethnicity
f Predictors: (Constant), Annual hhousehold net income, Owe money - credit card(s), Highest academic qualification, Household size category, Ethnicity, Immigrants (Came to Britain)
g Dependent Variable: Owe money - how much

The regression model for the 2000 data with consumer debt as the dependent variable is illustrated in Table 4.13. As Model 1 was also the starting model and reflected the control variable, when compared to a model with no independent variables, the change in R^2 was the same as R^2. This model was also not statistically significant, $p > 0.05$. The addition of credit card debt variables (1–2) to the prediction of consumer debt (Model 2) led to a non-statistically significant increase of 0.003 in R^2, $p > 0.05$. In other words, credit card debt did not contribute significantly to the prediction of consumer debt in 2000. The addition of highest academic qualification (1–7) to the prediction of consumer debt (Model 3) led to a non-statistically significant increase of 0.006 in R^2, $p > 0.05$. This suggested that academic qualification did not contribute significantly to the prediction of consumer debt in 2000. The addition of household size (1–3) to the prediction of consumer debt (Model 4) led to a non-statistically significant increase of 0.002 in R^2, $p > 0.05$. This meant that household size did not contribute significantly to the prediction of consumer debt in 2000.

The addition of ethnicity (1–9) to the prediction of consumer debt (Model 5) led to a non-statistically significant increase of 0.001 in R^2, $p > 0.05$. Finally, the addition of the immigrant status variable (1–2) to the prediction of consumer debt (Model 6) led to a non-statistically significant increase of 0.001 in R^2, $p > 0.05$. This meant that the immigrant status variable did not contribute significantly to the prediction of consumer debt in 2000.

The R^2 column presents the percentage of variance that was accounted for by each block of independent variables, computed by multiplying the number by 100. In this case, the total variance explained was 1.5%, in line with Table 5.2.1. The 'R^2 Change' column in Table 5.2.2 shows the amount of variance that was added by each independent variable, and 'Sig F Change' shows whether this augmentation was statistically significant. The result in the R^2 column shows that the control variable (annual household net income) contributed 0.2% of the variance, credit card debt 0.5%, highest academic qualification 1.1%, household size 1.3%, ethnicity/race 1.5%, and immigrant status a total of 1.5% of the variance. The interaction of the independent variables did not show a significant contribution to the model, as indicated by the Sig F change value (> 0.05).

This result also suggested that the hierarchical regression model in Table 5.2.2 accounted for 1.5% of the total variance in the consumer debt of U.K. residents; when the variance of the control variable was subtracted from this, a total of 1.3% was accounted for by the independent variables. The results presented in Table 5.2.2 indicated that the Complete Model (Model 6) of control variables, credit card debt, highest academic qualification, household size, ethnicity/race, and immigrant status was not statistically

significant. This showed that the model did not statistically significantly predict consumer debt in 2000 and that there was no statistically significant linear relationship between the independent and dependent variables.

Table 4.14
Summary of Hierarchical Regression Model for 2000 Data
Dependent Variable: Consumer Debt

Model Summary							
Model	R	R Square	R Square Change	F Change	df1	df2	Sig. F Change
1	.048a	0.002	0.002	0.522	1	226	0.471
2	.074b	0.005	0.003	0.716	1	225	0.398
3	.106c	0.011	0.006	1.307	1	224	0.254
4	.116d	0.013	0.002	0.48	1	223	0.489
5	.121e	0.015	0.001	0.304	1	222	0.582
6	.124f	0.015	0.001	0.141	1	221	0.708

a Predictors: (Constant), Annual household net income
b Predictors: (Constant), Annual household net income, Owe money - credit card(s)
c Predictors: (Constant), Annual household net iincome, Owe money - credit card(s), Highest academic qualification
d Predictors: (Constant), Annual hhousehold net Iincome, Owe money - credit card(s), Highest academic qualification, Household ssize
e Predictors: (Constant), Annual hhousehold net Iincome, Owe money - credit card(s), Highest academic qualification, Household ssize, Ethnicity
f Predictors: (Constant), Annual hhousehold net Iincome, Owe money - credit card(s), Highest academic qualification, Household ssize, Ethnicity, Immigrant status
g Dependent Variable: Owe money - how much

The regression model for 2005 data with consumer debt as the dependent variable is illustrated in Table 4.13. As Model 1 was also the starting model and reflected the control variable, when compared to a model with no independent variables, the change in R^2 was the same as R^2. This model was also not statistically significant, $p > 0.05$. The addition of credit card debt variables (1–2) to the prediction of consumer debt (Model 2) led to a non-statistically significant increase of 0.015 in R^2, $p > 0.05$. In other words,

credit card debt did not contribute significantly to the prediction of consumer debt in 2005. The addition of highest academic qualification (1–7) to the prediction of consumer debt (Model 3) led to a statistically significant increase of 0.044 in R^2, p <0.05. This suggested that academic qualification contributed significantly to the prediction of consumer debt in 2005. The addition of household size (1–3) to the prediction of consumer debt (Model 4) led to a non-statistically significant increase of 0.007 in R^2, p >0.05. This meant that household size did not contribute significantly to the prediction of consumer debt in 2005. The addition of ethnicity (1–9) to the prediction of consumer debt (Model 5) led to a non-statistically significant increase of 0.005 in R^2, p >0.05. Finally, the addition of the immigrant status variable (1–2) to the prediction of consumer debt (Model 6) led to a non-statistically significant increase of 0.011 in R^2, p >0.05. This meant that the immigrant variable also did not contribute significantly to the prediction of consumer debt in 2005.

The R^2 column shows the percentage of variance accounted for by each block of independent variables, computed by multiplying the number by 100. In this case, the total variance explained was 10.6%. In line with Table 5.1 and 5.2. The 'R^2 Change' column in Table 4.13 shows the amount that was added by each independent variable and 'Sig F Change' shows whether this augmentation was statistically significant. The R^2 column indicates that the control variable (annual household net income) contributed 2.5% of the variance, credit card debt 3.9%, highest academic qualification 8.3%, household size 9%, ethnicity/race 9.5%, and immigrant status a total of 10.6% of the variance.

The interaction of the independent variables (academic qualification) showed a significant contribution to the model, as indicated by the Sig F change value (0.03). This result also suggested that the hierarchical regression model in Table 5.2.3 accounted for 10.6% of the total variance in the consumer debt of U.K. residents; when the variance of the control variable was subtracted from this, a total of 8.1% was accounted for by the independent variables.

The results presented in Table 4.13 indicated that the Complete Model (Model 6) of control variables, credit card debt, highest academic qualification, household size, ethnicity/race, and immigrant status was not statistically significant. This suggested that the model did not statistically significantly predict consumer debt in 2005 and that there was no statistically significant linear relationship between the independent and dependent variables.

Table 4.15
Summary of Hierarchical Regression Model for 2005 Data
Dependent Variable: Consumer Debt

Model Summary							
Model	R	R Square	R Square Change	F Change	df1	df2	Sig. F Change
1	.157a	0.025	0.025	2.596	1	103	0.11
2	.199b	0.039	0.015	1.58	1	102	0.212
3	.289c	0.083	0.044	4.844	1	101	**0.03**
4	.300d	0.09	0.007	0.75	1	100	0.389
5	.308e	0.095	0.005	0.497	1	99	0.482
6	.326f	0.106	0.011	1.229	1	98	0.27

a Predictors: (Constant), Annual hhousehold net Iincome

b Predictors: (Constant), Annual household net iincome, Owe money - credit card(s)

c Predictors: (Constant), Annual hhousehold net Iincome, Owe money - credit card(s), Highest academic qualification

d Predictors: (Constant), Annual hhousehold net Iincome, Owe money - credit card(s), Highest academic qualification, Household ssize

e Predictors: (Constant), Annual hhousehold net Iincome, Owe money - credit card(s), Highest academic qualification, Household ssize, Ethnicity
f Predictors: (Constant), Annual hhousehold net Iincome, Owe money - credit card(s), Highest academic qualification, Household size, Ethnicity, Immigrant status
g Dependent Variable: Owe money - how much

In Tables 4.15, 4.16, and 4.17; the R^2 for Model 1 control variables in 2005 was higher (0.025) than for Model 1 in 1995 (0.002) and 2000 (0.002), which amounted to a 11.5% difference between the change in R^2 for the three periods. After the addition of the credit card debt variable to Model 2, the R^2 change in 2005 was higher (0.015) than that of Model 3 in 2000 (0.003) and 1995 (0.002). This amounted to a 650% difference in the change in R^2 between 1995 and 2005, and a 400% difference in change in R^2 between 2000 and 2005. The addition of the academic qualification variable to Model 3 for 1995 led to a higher increase (0.046) in R^2 than the models for 2005 (0.044) and 2000 (0.006), which amounted to an 87% difference between the highest (1995) and lowest (2000) change in R^2 and a 4% difference between the highest (1995) change in R^2 and the change in year 2005.

Comparatively, after the addition of the household size variable to Model 3 to form Model 4, the R^2 for Model 3 in 1995 was higher (0.023) than that of Model 3 in 2000 (0.002) and 2005 (0.007). This amounted to a 91.3% difference in the change in R^2 for 1995 and 2000, and a 69.6% difference in change in R^2 for 1995 and 2005. The addition of the ethnicity variable to form Model 5 showed that the R^2 for 2005 saw a higher increase (0.005) than the Model 5 R^2 for 1995 (0.002) and 2000 (0.001). The results showed a 60% difference between the change in R^2 for 2005 and 1995, and an

80% difference between the change in R^2 for 2005 and 2000. The further addition of the immigrant variable to Model 5 to form the final, Complete Model (Model 6) showed that the R^2 for 1995 saw a higher increase (0.092) than the R^2 for 2005 (0.011) and the R2 for 2000 (0.001). This demonstrated a 99% difference between the change in R^2 for 1995 and 2000, and an 88% difference between the change in R^2 for 1995 and 2005. Similarly, the total variance accounted for by the complete regression model (Model 6) in 1995 was higher (16.7%) than in 2005 (10.6%) and 2000 (1.5%), which suggested that the hierarchical regression model accounted for more of the total variance in 1995 than in 2000 and 2005. The beta coefficients for the above tables for Model 6, showing all the independent variables entered, are presented in Tables 4.15, 4.16, and 4.17. The *t* value refers to the beta weighting for each variable in the regression and 'Sig' states whether it is statistically significant in terms of *t* size.

Taking the *t* size into account, Table 5.2.4 (1995 sample data) indicates that the immigrant status variable made the largest contribution to the model and was significant at the 0.05 level. Highest academic qualification made the least contribution to the model and was not significant at the 0.05 level. All the independent variables, except for immigrant status, made no unique significant contribution (p >.05) to the model. The best predictor of consumer debt was immigrants ($\beta = 0.43$).

Table 4.16
Coefficients of the Final Model for 1995 Data
Dependent Variable: Consumer Debt

Model 6	**Unstandardized Coefficients**		**Standardized Coefficients**		
	B	Std. Error	Beta	T	Sig.

(Constant)	-1390.62	2000.236		-0.695	0.489
Annual hhousehold net iincome	0.014	0.111	0.014	0.129	0.898
Owe money - credit card(s)	-307.433	489.589	-0.07	-0.628	0.532
Highest academic qualification	-279.268	151.461	-0.199	-1.844	0.069
Household size category	-494.366	398.197	-0.143	-1.242	0.218
Ethnicity	-845.512	487.872	-0.256	-1.733	0.087
Immigrant status (Came to Britain)	6110.974	2064.408	0.428	2.96	**0.004**
Dependent Variable: Consumer Debt					

The results shown in Table 4.16 (2000 sample data) indicated that credit card debt made the largest contribution to the model but was not significant at the 0.05 level. Highest academic qualification made the least contribution to this model and was not significant at the 0.05 level. None of the independent variables made a significant unique contribution (p >.05) to the model. The best predictor of consumer debt in this model was the presence of credit card debt (β = 0 .05).

Table 4.17
Coefficients of the Final Model for 2000 Data
Dependent Variable: Consumer Debt

Model 6	**Unstandardized Coefficients**		**Standardized Coefficients**		
	B	Std. Error	Beta	T	Sig.
(Constant)	4112.509	2096.937		1.961	0.051
Annual hhousehold net Iincome	-0.106	0.087	-0.087	-1.218	0.224
Owe money - credit card(s)	443.598	585.508	0.053	0.758	0.449
Highest academic qualification	-203.305	187.312	-0.078	-1.085	0.279
Household ssize	310.12	517.708	0.042	0.599	0.55
Ethnicity	-197.886	364.842	-0.037	-0.542	0.588
Immigrant status	484.921	1291.403	0.026	0.375	0.708
Dependent Variable: Consumer Debt					

Similarly, to Wave 5 (2000), the results shown in Table 4.17 (2005 sample data) indicated that credit card debt made the largest contribution to the model but was not significant at the 0.05 level. Highest academic qualification made the least contribution to

this model but was significant at the 0.05 level. All the independent variables except for highest academic qualification and annual household net income made no unique significant contribution (p >.05) to the model. The best predictor of consumer debt in this model was the presence of credit card debt (β = 0 .13). The most statistically significant predictors of consumer debt in this model were highest academic qualification (β = - 0 .23) and annual household net income (β = -0 .22)

Table 4.18
Coefficients of the Final Model for 2005 Data
Dependent Variable: Consumer Debt

Model 6	**Unstandardized Coefficients**		**Standardized Coefficients**		
	B	Std. Error	Beta	*T*	Sig.
(Constant)	16317.33	4082.541		3.997	0
Annual Household Income	-0.43	0.193	-0.221	-2.231	**0.028**
Owe money - credit card(s)	1762.75	1323.634	0.13	1.332	0.186
Highest academic qualification	-1022.57	445.197	-0.233	-2.297	**0.024**
Household Size Category	918.335	1149.232	0.079	0.799	0.426
Ethnicity	-399.769	518.269	-0.075	-0.771	0.442
Immigrant Status	-2729.73	2461.927	-0.107	-1.109	0.27
Dependent Variable: Consumer Debt					

The results of the models shown in Tables 4.15, 4.16 and 4.17 showed the predictive power of the dependent variable (consumer debt), which indicated that the dependent and independent variables had a linear relationship. However, it is customary to report only the final model (Model 6).

Table 4.18 revealed that, in addition to the control variable (annual household net income), credit card debt, highest academic qualification, household size, ethnicity, and immigrant status were also significant at the 0.05 level. The F column in Table 4.18

presents a comparison of the difference in variance across the six groups of significant variables and the between-groups variance.

Table 4.19
ANOVA Test of Model Fit for 1995 Data
Dependent Variable: Consumer Debt

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	657657.582	1	657657.6	0.139	.710
	Residual	398199914.7	84	4740475		
	Total	398857572.2	85			
2	Regression	1487257.092	2	743628.5	0.155	.856
	Residual	397370315.1	83	4787594		
	Total	398857572.2	85			
3	Regression	20031190.52	3	6677064	1.445	.236
	Residual	378826381.7	82	4619834		
	Total	398857572.2	85			
4	Regression	29214370.36	4	7303593	1.6	.182
	Residual	369643201.9	81	4563496		
	Total	398857572.2	85			
5	Regression	29842696.72	5	5968539	1.294	.275
	Residual	369014875.5	80	4612686		
	Total	398857572.2	85			
6	Regression	66686498.04	6	11114416	2.643	**.022**
	Residual	332171074.2	79	4204697		
	Total	398857572.2	85			

The results presented in Table 4.20 revealed that, in addition to the control variable (annual household net income), credit card debt, highest academic qualification, household size, ethnicity, and immigrant status were not significant at the 0.05 level. The F column in Table 4.20 shows a comparison of the difference in variance across the six groups of significant variables and the between-groups variance.

Table 4.20
ANOVA Test of Model Fit for 2000 Data
Dependent Variable: Consumer Debt

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9039655.533	1	9039655.533	0.522	.471
	Residual	3915158000	226	17323707.96		
	Total	3924197655	227			
2	Regression	21461279.55	2	10730639.77	0.619	.540
	Residual	3902736376	225	17345495		
	Total	3924197655	227			
3	Regression	44105139.05	3	14701713.02	0.849	.469
	Residual	3880092516	224	17321841.59		
	Total	3924197655	227			
4	Regression	52443608.08	4	13110902.02	0.755	.556
	Residual	3871754047	223	17362125.77		
	Total	3924197655	227			
5	Regression	57729920.23	5	11545984.05	0.663	.652
	Residual	3866467735	222	17416521.33		
	Total	3924197655	227			
6	Regression	60195185.54	6	10032530.92	0.574	.751
	Residual	3864002470	221	17484174.07		
	Total	3924197655	227			

The results shown in Table 4.21 revealed that, in addition to the control variable (annual household net income), credit card debt, ethnicity, and immigrant status were not significant at the 0.05 level. However, highest academic qualification and household size were significant at the 0.05 level. The F column in Table 4.21 shows a comparison of the difference in variance across the six groups of significant variables and the between-groups variance.

Table 4.21
ANOVA Test of Model Fit for 2005 Data
Dependent Variable: Consumer Debt

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	117983296.7	1	117983296.7	2.596	.110
	Residual	4680769390	103	45444363.01		
	Total	4798752687	104			
2	Regression	189379055.6	2	94689527.79	2.095	.128
	Residual	4609373631	102	45189937.56		
	Total	4798752687	104			
3	Regression	400326359.9	3	133442120	3.064	**.031**
	Residual	4398426327	101	43548775.51		
	Total	4798752687	104			
4	Regression	433053832.2	4	108263458.1	2.48	**.049**
	Residual	4365698854	100	43656988.54		
	Total	4798752687	104			
5	Regression	454872909.9	5	90974581.98	2.073	.075
	Residual	4343879777	99	43877573.5		
	Total	4798752687	104			
6	Regression	508690790.5	6	84781798.41	1.937	.082
	Residual	4290061896	98	43776141.8		
	Total	4798752687	104			

Summary and Conclusion

A summary of the results of the hierarchical regression analyses is presented in Table 4.22. The percentage of the variance on the dependent variables, both with and excluding the control variables (in brackets), is shown in the first row and the significance of the ANOVA results by model shown in the next two rows. The independent variables were the constructs of greatest note since they were found to have significant standardized beta weights; these are shown in the subsequent rows. They are

listed according to control variables, financial incapability, health, satisfaction, and psychological wellbeing (PWB).

The variance figures were similar between years for PWB and financial incapability, both with and excluding control percentages. The ANOVA results showed that Model 6 was significant for 1995, there were no significant models in 2000, and that Models 3 and 4 in 2005 demonstrated good fit. I will discuss these results and their value for academia and practice in the next chapter, and also make links to the literature and highlight the possible future implications of the results of this study

Table 4.22
Summary of Results of the Hierarchical Regression Analyses

	DV: Consumer Debt		
	1995	**2000**	**2005**
DV Variance explained (excluding Control)	16.7% (16.5%)	1.5% (1.3%)	10.6% (8.1%)
ANOVA (Model sig.)			**Model 3:** Annual household net income, credit card debt, and highest academic qualification
	Model 6: Full model was significant		**Model 4**: Annual household net income, credit card debt, highest academic qualification, and household size
Ind. Variables St. Betas (sig)			Annual household net income
			Highest academic qualification
	Immigrants		

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this quantitative correlational study was to examine whether there was an association between credit card debt and the income gap among U.K. immigrants and British citizens through an analysis of data collected by the BHPS using the ABC model. I used the BHSP to determine whether a correlation existed between consumer debt and immigrant status among U.K. immigrants and British citizens. Specifically, in this study I investigated the relationship between several selected demographic characteristics of U.K. immigrants and British citizens and consumer debt in the years 1995, 2000, and 2005 using survey data from the BHPS. Based on the purpose of this study, the research was cross-sectional in nature. For the study design, I selected a comparative cross-sectional approach to examine consumer debt and its association with academic qualification, presence of credit debt, household size, ethnicity, and immigrant status in 1995, 2000, and 2005 while annual household net income was held constant.

In this study, consumer debt was the dependent variable, with highest academic qualification, credit card debt, household size, ethnicity, and immigrant status as independent variables and annual household net income as the covariate. The results from the analysis indicated that: the greater the number of people in a household, the higher the debt likely to be incurred; native citizens of the United Kingdom took on more debt than immigrants living in the United Kingdom; those with higher levels of educational attainment tended to owe more money; Caucasian residents took on more debt than other ethnicities living in the United Kingdom; and the presence of credit debt was likely to increase the total consumer debt owed by an individual.

Interpretation of Findings

The results from the descriptive statistics highlighted the observations that were included in this study. Based on the selection criteria, the data for 95 residents were observed in 1995, 276 in 2000, and 116 in the year 2005. The mean consumer debt incurred was £1,897, £4,016, and £8,169, in 1995, 2000, and 2005, respectively. This result showed that the consumer debt incurred by U.K. residents increased by 112% in the first 5 years (1995–2000) and by 103% between 2000 and 2005, which demonstrated the rise in consumer debt over time. This rapid increase in consumer debt is in line with Harari's (2017) findings that the total household debt in the United Kingdom rose sharply from the late 1990s until the beginning of the financial crisis in 2008, while household income debt rose from 93% in 1997 to 157% at its peak in early 2008. Annual household net income also showed an incremental trend, where households earned an average of £5,084 in 1995, an average of £5,844 in 2000, and £7,601 in 2005. This pattern of increasing income aligns with the data presented by the National Health Service that indicated that the average income in Britain had increased over the preceding 50 years, and people in the United Kingdom had become richer (ibid). A similar upward trend was evident in the average amount of consumer debt owed. However, the present research could not establish an association between debt and income because of the lack of information provided by the BHPS regarding the time period over which debt had been accumulated. Therefore, in this study, it was not possible to weight over debt by income (Sarah et al.; 2003).

Highest Academic Qualification and Consumer Debt

Throughout the 3 years I have investigated in this study, those individuals with higher and first degrees incurred more debt than individuals with other degrees. Interestingly, those whose highest academic qualification was A level had more consumer debt than those whose highest qualification was HND/HNC/teaching. Individuals without any of these academic qualifications (higher degree, first degree, HND/HNC/teaching, A level, O level, and CSE) had the lowest debt in the years 1995 and 2000 but incurred more than those with an HND/HNC/teaching qualification in 2005. Overall, the results show that the higher an individual's level of education, the more likely they are to incur debt. Although the order of qualification levels with the highest amount of debt varied, those individuals with higher levels of educational attainment tended to owe more money.

This result is similar to that found by Haq et al. (2018), who also concluded that the amount of debt owed by an individual increased with education. According to Crook (2006) and Del Rio and Young (2005, as cited by Haq et al., 2018), better-educated individuals will tend to have better job prospects, which lead to higher expected income and, hence, will have better access to loans. Although individuals seek education to improve their prospects in the job market, which could translate to increased income, the results from Haq's et al.'s (2018) study indicated that the effect of education on the decision to take on debt is not moderated by income. This means that a person having higher education may be more likely to decide to take on debt compared to those having less education, but their decision will not be affected by their income, and vice versa.

A similar line of thought was expressed by Bill Fray (n.d.) in an article on the demographics of debt in the United States. Based on data regarding the average debt owed by educational level from a Federal Reserve report, Fray concluded that education plays a role in how much debt people are willing to take on because, as education level increases, so too does an individual's likelihood of taking on debt, especially credit card debt. This could be as a result of the strain of student loans or because people with more education tend to earn more and can, therefore, afford more debt.

Ethnicity and Consumer Debt

Regarding consumer debt and ethnicity, more comparable data were available for the years 2000 and 2005. Furthermore, since the data showed a skewed distribution to the Caucasian population, as there was little variation in the data regarding different ethnicities, it was, therefore, appropriate to compare the average consumer debt among Caucasian residents of Britain with that of other ethnic groups.

In 1995, the average debt owed by a Caucasian U.K. resident was lower (£1,916) than that owed by those in other ethnic groups (£2,000). This anomaly was as a result of there being just two non-Caucasian ethnic groups in the data for that year. In 2000, however, the average debt owed by a Caucasian U.K. resident was higher (£4,031) than that owed by other ethnicities (£3,387).

Similarly, in 2005, Caucasian U.K. residents also owed more debt (£8,268) than other ethnic groups (£5,970). Not only did these results collectively show that Caucasian residents in the United Kingdom owed more in debt than other ethnic groups, but also, when different ethnic groups were examined individually, the Caucasian U.K. residents

had a larger amount of debt. This result indicated that Caucasian U.K. residents took on more debt than other ethnicities in the United Kingdom, a finding which is reminiscent of the result from the study conducted by Demos (2008), which explored the nuances of credit card debt, total debt, income, and assets among Hispanic, African American, and Caucasian households. The findings showed that Caucasians had higher credit card debt than African Americans but slightly lower than Hispanics. In addition, the annual interest percentage rates of credit cards was found to be lower for Caucasians (14%) than for Hispanics (16%) and African Americans (17%).

A similar result was found in a study by Brutus (2014), where Caucasian households had a higher percentage of debt than African American and Hispanic households. The mean value of the debt owed by each ethnic group was also higher for Caucasians than Hispanics, and more than double that of African American households. Killewald (2013) also found that, among young adults, Caucasian households were more likely than non-Caucasian households to hold various types of debt, such as mortgages, auto debt, and credit debt, and had higher debt-to-income ratios. Moreover, the median Caucasian debtor held approximately 60% more debt than the average African American debtor. These results highlight the stark differences in the amount of debt held by ethnicity.

Credit Card Debt and Consumer Debt

In terms of credit debt and its links to consumer debt, the results of the study showed that, aside from in 1995, individuals in the United Kingdom who owed credit card debt had higher total consumer debt than individuals who did not mention owing a

credit card debt. This indicated that the presence of credit debt is likely to increase the total consumer debt owed by an individual. A main reason why credit card debt is likely to cause an increase in total consumer debt is that, unlike other debt (mortgage or auto loan debt), which is fixed, credit card debt is revolving, meaning it is open-ended in nature such that consumers can accrue different amounts of debt each month and pay the minimum of what is owed; this provides the opportunity to spend more up to the limit of the credit card (O'Connell, 2019).

According to the results from the 2004 Survey of Consumer Finances, approximately 75% of all participating households owned at least one credit card, and 58% of those holding a credit card carried a balance (total amount of money currently owed on a credit card account). The availability of credit makes it easier for households to spend more instead of postponing a purchase; this, combined with the high interest rate on credit card debts, increases consumer debt (Prinsloo, 2002).

The U.K. Finance's Household Finance update as of December 2018 showed that the amount of money owed on credit card had grown to reach £44.8bn, the highest recorded amount since the data collection started in 1997. Furthermore, the outstanding level of credit card borrowing in the United Kingdom grew by 4.7% in 2018 and credit card spending in December was £11bn, 3.8% higher than in 2017 (Fenton, 2019). In the United States, according to the New York Federal Reserve data, at the end of 2018, credit cards were the fourth largest type of consumer debt after mortgages, student loans, and auto debt. Furthermore, the increase in credit card debt had been faster than the other categories of debt (Tanzi, 2019). The high interest rates on credit card debt combined

with expenses that continue to outweigh income has resulted in households being unable to rid themselves of debt and, in fact, continue to take on more (Tosie & El Issa, 2018).

Credit debt is almost always accumulated as a result of social norms and social networks impacting the way an individual spends (Sotiropoulos & D'Astous, 2012). Individuals over-spend using credit cards because of their belief in a requirement to spend a relative minimum amount based on the perceived expectations of others around them (Kamleitner et al., 2013). From a psychological perspective, credit card debt is argued to be accumulated as a result of materialism (Yam et al., 2012; Peltier et al., 2013), impulsive and compulsive buying (Sotiropoulos & D'Astous, 2012; Oksanen et al., 2015; Keese, 2012), optimism and pessimism (Kamleitner et al., 2013), and risk-seeking behavior (Dean et al., 2013; Kamleitner et al., 2013), among other factors. These behaviors perpetuate the use of credit cards and, in turn, increase total consumer debt.

Household Size and Consumer Debt

During the period of 1995, households of one to two people had the highest mean consumer debt, while those with more than five people had the lowest consumer debt. This finding was unexpected as it is usual for spending to increase in proportion to the number of people in a household. This anomaly could have been the result of multiple streams of income from more than one person in the household. Although this result indicated that households with a lot of people did not have high amounts of consumer debt in 1995, this trend did not continue to the 2000s. In the years 2000 and 2005, those with a household size greater than five had the largest amount of consumer debt. This

indicated that the more people there were in a household, the higher the amount of debt likely to be incurred.

In an investigation regarding household debt, Haq et al. (2018) also found that larger households tended to have a higher amount of debt. The result of the present study supports the sentiment of the result from the USA Household Consumption and Financial Survey (as cited by Haq et al., 2018), which reported the likelihood of increased debt as larger household sizes lead to higher household expenditure, and eventually increased debt. Although the household sizes indicated in the present research and that of Haq et al. (2018) did not suggest the presence of children in the household, the study carried out by Kempson, McKay, and Willits (2004) for the Department of Works and Pension in the United Kingdom focused on the linkage between family size and debt and did include households with children. The results from their study are in line with the results of the present study, as the authors found that larger families with three or more children were more likely than small families to fall into debt. Specifically, 18% of families with children had debt of some kind, which rose to 22% for those with three children, and 32% for those with four or more children (Kempson et al., 2004).

Immigrant Status and Consumer Debt

The same trend as was observed among ethnic groups was also noticed among those who were born in the United Kingdom compared to those who had come to live in the United Kingdom. Aside from the years 1995 and 2000, those who were born in the United Kingdom (those whose status was ‘citizen’ and not ‘immigrant’) incurred more debt than those who had come to live in the United Kingdom. The average debt for

citizens ranged from £1,775 to £8,430 across the 3 years studied, while for those who had come to live in the United Kingdom, average debt ranged from £4,735 to £5,666 across the 3 years. The data also showed that immigrant spending was higher in 1995 and 2000. This result was different from the norm as immigrants have been found to be more likely to be wary of incurring debt than citizens (Brown & Taylor, 2008; Aznar, 2013). Another reason is the reduced likelihood of minorities gaining access to credit (Economic Wellbeing of U.S. Households, 2013).

This anomaly in the results was due to the high variation in the data caused by the under-sampling of immigrant groups in the BHPS and the sample used for the analysis of the present study. The result for 2005, however, showed that citizens of the United Kingdom took on more debt than immigrants living in the United Kingdom. This result was supported by the literature. For example, Aznar (2013) explored the formal and informal financial practices of immigrants (Congolese and Francophone Cameroonians) in London and found that many of them did not want to accrue debt and would rather save than take out a credit card or loan. Other studies have shown that immigrants, in particular African Caribbeans and Asians, demonstrate the greatest gap in debt in comparison to Caucasians (Caputo, 2012; Drentea & Reynolds, 2012). This disparity in debt levels could be as a result of immigrants' attitude toward debt. Ekanem (2013) found that shame and stigma had a greater impact on ethnic minorities, as these were close-knit communities with strong ties with each other; the fear of bringing shame to the community was a powerful motivator for ethnic or racial minority groups to avoid debt.

Limitations of the Study

Due to using existing survey data, I did not have control over the data collected for analysis, which limited the study to the data available within the source, the BHPS. Financial data related to debt, prior to the financial crisis in 2008, were only collected in 1995, 2000, and 2005; therefore, the findings from this study may have limited ability to be generalized to the current financial situation in the United Kingdom. A significant limitation related to the consumer debt data was the lack of information provided by the BHPS on the time period over which the debt was calculated; all that was provided was a simple a measure of the extent of consumer debt at a point in time. Since the time period over which the debt was accumulated was unknown, it was not possible to weight over debt by income, which limited the level of associations that could be explored. The data used, like any other survey data, was associated with high level of respondent attrition; this, and the few responses available for the period of interest, posed a difficulty in tracking, hence the need for a cross-sectional study. The design, however, disallowed the determination of cause and effect relationships and came with the possibility of the samples not being representative for each snapshot. The BHPS also under-sampled non-Caucasian immigrant and ethnic populations and, by doing so, under-sampled the debt, income, and other sociodemographic information relating to the population.

Recommendations

The literature that guided this research provided some basis for the focus and direction of the study. The recommendations for further research suggested or identified are based on the findings of the research and the limitations encountered in the process of

conducting the data analysis for this study. The recommendations are proposed with the aim of providing additional contributions to knowledge and theory, and relevance to management practice.

In the planning phase of this research, the main approach that was initially decided upon was a longitudinal study of credit card debt among British citizens and immigrants in the United Kingdom for the purpose of tracking them through the 3 years of interest in an attempt to determine the relationship between debt levels and demographic characteristics. The BHPS was considered as a secondary data source; however, a deep dive into the data available in the panel survey with the selected inclusion criteria revealed the absence of immigrants and non-Caucasian ethnic groups in the sample. This resulted in a change in design from a longitudinal to a comparative cross-sectional study design, and an investigation of consumer debt instead of credit card debt. The main reason for the methodological change was the under-sampling of immigrant and non-Caucasian populations in the whole datasets for Waves 5, 10, and 15, which in turn had resulted in the under-sampling of their demographic variables. It is therefore recommended that future research in this area be conducted to include a wide range and sample of immigrant population and non-Caucasian groups.

From a methodological stand point, it is further advised to carry out this research using a longitudinal design in order to be able to investigate cause and effect and also predict or determine the correlates of credit card or consumer debt among immigrants and British citizens. This may require the inclusion of a different primary or secondary dataset aside from the BHPS, which is lacking in its ability to determine the time period

over which debt was incurred. It is also recommended that more independent or explanatory variables, such as homeownership, home tenure, financial assets, type of debt owed (secured or unsecured), credit scores, and the number of credit cards owned be included in future research on the debt behaviors of British citizens and immigrants.

A major strength of this research is the investigation of the relationship between debt and the immigrant population and ethnic groups in the United Kingdom. This study closed the gap in the literature by investigating this association, as findings in the context of immigrants in the United Kingdom were limited, although numerous studies have linked certain demographics to consumer and credit debt. It is, however, advised that further research be carried out in relation to immigrants in the United Kingdom and debt. Furthermore, due to the availability of data for 1995, 2000, and 2005 only, all of which were prior to the financial crisis in 2008, the findings from this study may have limited ability to be generalized to the current financial situation in the United Kingdom. Hence, it is recommended that future research exploring the relationships between immigrants in the United Kingdom and debt be carried out using more recent and robust data.

Since other detailed attributes of household size, such as single family, couple family, couples with children, number of dependents, single-income households, dual-income households, number of children in single and dual-income households, etc., were not considered in this research, it is suggested that future research take these factors into account. Investigating the different facets of household composition in relation to British citizens and immigrants could help in determining those facets that have a significant effect on consumer debt. The long-term effect could provide households with roadmaps

of when, how, and to what level they should engage in borrowing, depending on their household composition, and enable them to seek out ways to mitigate the effects of high levels of consumer debt. The results of this research showed that higher academic qualifications made a greater contribution to the variations in consumer debt in all the years of interest. There may have been some factors that differed within each qualification, which could affect consumer debt differently. Further investigation in this area is required to investigate additional academic qualification factors that affect consumer debt.

The findings of such research might prompt the consideration of different financial activities or debt provision policies for each education level. Future research should also examine the educational levels or attainment of British immigrants and how this affects their financial decisions and practices. This will help to determine the extent to which financial education is needed among these groups.

Although the conceptual framework and model used in this study served to provide useful insight into the relationship between British citizens, immigrant demographics and consumer debt, there remains a need to more conceptually explore other types of consumer debt, such as credit card debts, medical debts, and student loan debts. The concept and model might also be tested in other management settings with specific groups of people, such as young adults, students, household heads, or the married population, where the relationships between these groups and consumer debt may yield different results.

Implications

The study has generated a potential impact in regard to positive social change and some important implications for theory and practice.

Implications for Theory

Although the data in this research relate to periods prior to the financial crisis and thus might not be entirely applicable in the current financial situation of United Kingdom, the significance of the result of this study lies in the fact that the issue of consumer debt has now been linked to certain demographics, particularly immigrant status and non-Caucasian ethnicity, due to the disparities in income levels, wealth, financial assets, and access to credit.

The results of this study have also provided novel contributions to the literature on consumer debt. The findings showed that consumer debt was positively related to credit card debt, household size, academic qualifications, ethnicity, and immigrant status. The research results also indicated a significant difference in the amount of consumer debt incurred between those who had been born in the United Kingdom (British citizens) and those who had come to the United Kingdom (immigrants), even when household income was also considered. In addition, academic qualifications, immigrant status, and household size were found to have contributed more to the variation in consumer debt during the periods evaluated. The results outlined in this study confirm the importance of immigrant status, household size, and academic qualifications on the amount of consumer debt owed.

Although the period to which the data used in this research relate was prior to the financial crisis and thus might be not entirely applicable in the current financial situation of the United Kingdom, the significance of the result of this study lies in the fact that the issue of consumer debt has now been linked to household composition, the presence of credit card debt, the level of academic qualification, ethnicity, and immigrant status. The relationships considered in this research with the use of the BHPS data have not previously been compared in this way in the literature, which demonstrates originality and the addition of new knowledge to existing literature.

The conceptual model evaluated and used in this study to explore the relationships between immigrant-related explanatory variables (household size, credit card debt, ethnicity, highest academic qualification, and immigrant status) and consumer debt is another contribution of this study to the body of knowledge and literature. The model tested in this research can be applied to current financial data with similar immigrant and citizen population data distribution and demographic conditions, which would offer some insight with respect to future policy and practice considerations that may concern the immigrant population and ethnic groups. The constructs and concepts used in this research can form a part of the methodology for further studies of the concept of debt using the ABC model.

Implications for Practice

The findings of this study are relevant and timely to the review of the financial services and banking industry conducted by the Financial Conduct Authority of the United Kingdom, wherein it was found that an increase of credit debt had been

transpiring for the past few years (Painter, 2014). In addition, findings from this study can aid in identifying those individuals vulnerable to credit debt, which would facilitate improvements in policies to protect credit card users and enable financial institutions to better monitor their customers for credit card misuse (Awanis & Cui, 2013). According to Legge and Heynes (2009), the possession of higher academic qualifications makes individuals more optimistic and confident about their future income levels. The individual's positive expectation regarding their financial position has been shown to be associated with a higher probability of participation in the debt market. This study also found an association between high educational achievement and increased level of consumer debt. This finding can help high educational attainment individuals to take note of the probability of their financial activities and behaviors leading to increased debt and help them to consider carefully how much to borrow to avoid excessive debt.

Implications for Social Change

The findings of this study can assist in bringing about positive social change by providing specific information to banks and lending institutions on how they can manage the credit lines of the specific groups that were studied. There have been numerous studies linking consumer debt to certain demographics; however, there has not been sufficient research on consumer debt among immigrants as a demographic. Most research on immigrants has studied wealth as a whole, but not specifically at immigrant debt (Painter, 2014; Painter, 2013; Painter, Holmes, & Bateman, 2015; Painter & Qian, 2016). Additionally, no researcher has applied the ABC model to this context. Knowing which ethnic groups demonstrate certain behaviors in terms of paying off debts as well as

excessive spending using consumer credit provides insights for banks and lending institutions on how they can manage the credit lines of these specific groups (Painter, 2014).

Lastly, the findings of this study have expanded the body of knowledge about the relationship between credit debt and immigrant status in the United Kingdom, which has received growing interest among researchers in the field of finance and economics.

Conclusions

This study investigated whether there was an association between consumer debt and the income gap among U.K. immigrants and British citizens. This research explored demographic characteristics related to immigrants, such as household size, credit card debt, ethnicity, highest academic qualification, and immigrant status while treating annual net income as the covariate. The research question was largely motivated by the dramatic rise in consumer debt in the United Kingdom and its links to certain demographics, particularly immigrants and non-Caucasians, due to the disparity in income levels, wealth, financial assets, and access to credit. The sample for the cross-sectional study was taken from three different years (1995, 2000, and 2005) of the BHPS and was analyzed using a correlation test, regression, and ANCOVA.

In agreement with literature and the widespread belief that immigrants or non-Caucasian have less debt than citizens or Caucasian ethnic groups, the correlation and ANCOVA results revealed relationships between immigrant status and low levels of debt. The results also showed that people with higher levels of education acquired more consumer debt than their less-educated counterparts, that credit card debt increased the

total consumer debt owed, and that larger households incurred more consumer debt. Several explanations can be provided for these results, and a number of factors might have influenced the differences in the levels of consumer debt.

First, the lack of information provided by the BHPS on the time period over which consumer debt was calculated. The data contained only a simple measure of the extent of consumer debt at a point in time, which restricted the ability to calculate how income gap affected the debt levels.

Second, the under-sampling of non-Caucasian and immigrant populations in the years of interest in the BHPS would have resulted in under-sampling of the debt, income, household size, credit card debt, and other demographic characteristics of the population. This result might or might not have been similar if there had been a normal distribution among the immigrants and British citizens in the data.

Third, due to the level of respondent attrition over the different years, information on changes in income, credit debt, and household composition, which would have been valuable in obtaining a more accurate and robust assessment of the association between consumer debt and immigration among immigrants and British citizen in the United Kingdom, were unavailable. The findings from this result should be interpreted with caution because of the limitations described above. However, the study clearly shows a positive relationship between consumer debt and household size, credit card debt, higher academic qualification, ethnicity, and immigrant status. Although in this study I did not find a significant effect of the demographic characteristics on debt in all the years

investigated, I discovered that highest academic qualification, household size, and immigrant status contributed considerably to the variations in consumer debt.

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