The Distinct Influences of Financial Information Intermediaries on Consumer Rationalisation of Vehicle Finance

Simangaliso Biza-Khupe
University of Botswana, Botswana

Tony Ward
Central Queensland University, Australia

Abdullahi D. Ahmed
Central Queensland University, Australia

According to the classical economics theory, consumers are sovereign economic entities motivated to maximise their wellbeing. One strategy used to rationalise credit choices is through consultation of information intermediaries. While the literature recognises the notion that financial information intermediaries are exogenous in form and substance, the distinct influence of each information intermediary on consumer financial rationalisation has not been examined a priori - an objective of this study. Using a sample drawn from Melbourne residents, a proposed theoretical model was empirically tested. The results were suggestive that financial information intermediaries significantly influenced consumers' vehicle finance rationalisation. Furthermore, different financial information intermediaries seemed to have distinct influence on borrowers' vehicle finance decisions. The implications of the study findings are discussed.

INTRODUCTION

The economics approach views individuals as sovereign economic entities directed at judiciously matching their consumption needs to offers in the market (Rischkowsky & Doring, 2008). Following from this argument, individuals are projected to behave in a manner which maximises their net expected gains, construed from estimates of the difference between expected positive and negative utility (Kulviwat, Guo, & Engchanil, 2004). Credit rationalisation plays a critical role in maximising the personal economic utility function and thereby maximising financial wellness (Klein & Ford, 2003; Kulviwat et al., 2004). A rational borrower, for example, optimises credit utility by choosing a debt portfolio that minimises the expected cost of financing a targeted level of debt through a judicious choice of credit instruments and lending terms (Lee & Hogarth, 1999a; Santomero, 2001; Zhu & Meeks, 1994). Financial aptitude, skill base and the knowledge of the costs and benefits of alternative credit choices available in the market is the cornerstone of any credit rationalisation strategy. Consumers gather information from different financial information intermediaries to augment their 'banked' knowledge in order to optimise their financial decisions and choices. There are several benefits attributable to credit rationalisation. Increased returns per dollar invested and low interest rate and finance charges are the most obvious short-term benefits. The larger the amount being borrowed the higher will be the interest rate and finance charge dispersion in the market, hence the higher will be the magnitude of benefits of a rationalisation process (Stigler, 1961). Long-term benefits include gains in financial knowledge for future applications, better financial management skills, greater savings and realising the most out of financial instruments (Chang & Hanna, 1992; Lin & Lee, 2004). Consumers who rationalise their credit acquisitions are therefore expected to maximise their consumption utility by having their credit needs best aligned with the most appropriate credit instrument, a position that provides for enhanced financial wellbeing through, for example, reduced cost of credit, optimal use of credit instruments, increased satisfaction with the outcome and improved credit management skill. For example, Lee and Hogarth (1999b) conducted a study to examine factors that impact on Annual Percentage Rate (APR) returns on consumer mortgage acquisition. In the study, interest rate savings were found to be significantly influenced by information gathering effort, term and source of loan, age and education of a respondent, household size and region and credit experience. Also found was that ‘refinancers’ who engaged in an extended information search obtained the lowest APR compared with other borrowers, an observation consistent with those of other studies (Chang & Hanna, 1992; Kim, Dunn, & Mumy, 2005; Lee & Hogarth, 1998, 1999b). These study findings demonstrate that credit rationalisation yields benefits to individuals.

Consumers markets provide a myriad of information sources. The literature is replete with studies on (i) the typologies of information sources (Claxton, Fry, & Portis, 1974; Freiden & Goldsmith, 1989; Kiel & Layton, 1981; Urbany, Dickson, & Wilkie, 1989; Westbrook & Fornell, 1979), and (ii) the interdependency in the use of information intermediaries by consumers (Lee & Cho, 2005; Lee & Hogarth, 2000a, 2000b; Murray, 1991; Ratchford, Talukdar, & Lee, 2001). There is general consensus among these studies that information intermediaries are distinct in composite and informational orientation. However, the extent to which each information intermediaries distinctly influences consumer financial decisions and choices is not well understood. Therefore the objective of this paper is to contribute towards a better understanding of this phenomenon by, first, examining the influence of three financial information intermediaries on consumer credit rationalisation and, second, to evaluate the perceived differences in the influence of different information intermediaries on borrower credit decisions.

The structure of the remaining part of the paper is as follows. Next section provides a literature review and an overview of financial information intermediaries and the pattern in which they are used by consumers. Second, the research hypotheses are developed and presented in section three. The research methods and results output are then presented and discussed. Finally, the last section gives a conclusion and a summary of the study implications.

LITERATURE REVIEW: AN OVERVIEW OF INFORMATION INTERMEDIARIES

Information intermediaries are defined as ‘economic agents, in either human or unhuman form, whose purpose is to support the production, exchange, and use of information in order to increase the value of the information for its end user or reduce the cost of information acquisition’ (Lee & Cho, 2005, pp. 96). In essence, consumers engage information intermediaries as a rationalisation strategy, with a view to optimise on the quality (or value) of their decisions or choices. Some of the benefits accruing from this rationalisation process were briefly identified and discussed. Premised on that consumers are both budgetary constrained and risk averse (Brealey, Myres, & Marcus, 2007; Brigham & Houston, 2004), a contending view argues that individuals are motivated to engage information intermediaries as a strategy to minimise the risk of making uninformed, suboptimal choices (Beatty & Smith, 1987; Heaney & Goldsmith, 1999; Srinivasan & Ratchford, 1991). For example, Chang and Hanna (1992) found that when loan size increased, the savings benefits from search increased and the potential loss from not rationalising credit was correspondingly greater.

Different studies have adopted varying classification schema to classes of information sources. Kiel and Layton (1981) proposed that information source dimensions can be divided into three groups constituting retailer source, media source and interpersonal source. Similarly, Freiden and Goldsmith (1989) clustered sources of information into personal sources, physical search and mass media in their study of information search for professional services. Murray (1991) and Locander and Herman (1979) classified information sources into five groups: (i) impersonal advocates; (ii) impersonal independent; (ii) personal advocates; (iv) personal independent; (v) direct observation/experience. Schmidt and Spreng (1996) remodelled the proposed classification of information intermediaries by Locander and Herman (1979) by placing more emphasis on the connotation of informational content, namely: (i) market controlled sources; (ii) reseller information source; (iii) third party independent organisations; (iv) interpersonal sources; (v) direct inspection. Lee and Hogarth (2000b) and Capon and Lutz (1979) condensed consumer information sources into three principal clusters that effectively espoused most of the perspectives articulated in the other studies, and this is the schema adopted in this study:

i. personal sources, which largely take the form of informal inquiries with personal contacts, for instance friends, relatives, neighbours, acquaintances, co-workers and peers;
ii. independent sources, which encompass various neutral agencies and levels of government, independent rating agencies, and organisations that certify the quality of products;
iii. commercial sources, which include all entities that have a direct economic interest in a product and include manufactures, retailers and trade associations.

The Use of Primary Information Intermediaries by Consumers

Studies have established a trend in the approach adopted by consumers when consulting information intermediaries. On the whole, empirical evidence supports the notion that consumers are 'cognitive misers' who limit the number of information intermediaries consulted when searching for information (Freiden & Goldsmith, 1989). In a study of pre-purchase information search for professional services, Freiden and Goldsmith (1989) found that half of the respondents had consulted only one information intermediary and a quarter had consulted a maximum of two information intermediaries. Westbrook and Fornell (1979, pp. 310) found evidence of 'tradeoffs' being made in the manner consumers used and relied on different information intermediaries when searching for durable goods. Studies on search for financial products reached similar conclusions. In a study of search for mortgages, an average consumer was found to obtain information from two sources (Lee & Hogarth, 2000a). A study of consumer search for credit cards found that at the median, consumers consulted only one source of information (on average, 1.4 sources of information) prior to applying for a credit card (Lee & Hogarth, 2000b).

The reason for consumers to limit the number of information intermediaries that they consult is because information gathering is a costly exercise. These costs include transport expenses, purchase of information materials, the opportunity cost of time, the physical effort required, and the cognitive effort required to search and process the collected data (Chang & Hanna, 1992; Schmidt & Spreng, 1996). Besides, there is no obvious evidence found of an association between consumer satisfaction and the use multiple information intermediaries (Freiden & Goldsmith, 1989).

While all these studies have mapped out the interdependency in the consumer use of alternative financial information intermediaries when rationalising financial decisions, the distinct influence of each information intermediary on consumer financial decision has remained largely unexplored. Next to be discussed are the attributes and traits associated with different financial information intermediaries.

Financial Information Intermediaries

Financial information intermediaries are heterogeneous, particularly on the aspects of form, complexity and informational content (Lee & Hogarth, 1999a; Malbon, 2001; Ratchford et al., 2001). In this regard, each information intermediary has a unique orientation and is expected to influence a borrower's credit acquisition decision and choice in a distinct fashion.

Personal Financial Information Intermediary: Personal sources of financial information constitute personal contacts who represent a body of financial knowledge, by way of banked internal information, gathered and accumulated over time by means of prior exposure and past experience (Lee & Hogarth, 1999a; Schmidt & Spreng, 1996). To the extent that personal contacts are non-experts on personal finance, personal financial information intermediaries have been associated with provision of qualitative and 'soft' information (Capon & Lutz, 1979) and found most unlikely to provide relevant or accurate information on price or other quantitative information (Lee & Hogarth, 1999a). For instance, Malbon (2001) indicated that personal sources find elements of versatility, convenience and simplicity in consumer financial instruments to offer greater pre-purchase evaluation utility than other types of informational data. In this regard, personal financial information intermediary is predisposed to experiential, interpretive and subjective data (Lee & Hogarth, 1999a; Murray, 1991).

Independent Financial Information Intermediary: Consumer advocates attribute consumer over-indebtedness and the subsequent increase in bankruptcy trends to excessive interest rates on loans and socially irresponsible lending practices by some high-street lenders (Bridges & Disney, 2004). Independent financial advisors, constituting independent financial consultants, government agencies and financial institutions that are not a composite of the lending market, are expected to be largely driven by agendas directed at delivering professional and impartial advisory services. For example, independent information sources have been found to provide supplemental information on price and product attributes across sellers, and thereby enhance consumer understanding of the intricacies of credit and provide for product comparison across the financial industry (Lee & Hogarth, 1999a; Mattila & Wirtz, 2002; OECD, 1992). Also, the credibility of independent information sources is held in high esteem by consumers (Mitra, Reiss, & Capella, 1999). Therefore, as a source of information on consumer credit, an independent financial source is expected to be predisposed to facilitating cost-rational credit decisions and optimal credit choices.

Commercial Financial Information Intermediary: Commercial financial information intermediaries are defined as corporate entities that have a direct involvement in the consumer credit supply chain. Commercial sources of financial information constitute consumer credit providers such as banks, and deposit and non-deposit financial institutions. They disseminate information by personal or non-personal modes which include human-interactive consultation, media advertising, product information on packages, and product brochures. Much of the financial information that is available in the public domain is noted for being generated and supplied by commercial sources (OECD, 1992). The economic interest of commercial financial intermediaries in their respective products provides the strong incentive to disseminate information to consumers, especially if the entity is offering competitive terms (Capon & Lutz, 1979; Lee & Hogarth, 1999a; Mattila & Wirtz, 2002) and have been noted for withholding damaging information relating to their products (OECD, 1992). To this end, consumer credit lending institutions have been labelled as providing self-serving information (Krauss, 1990; Lee & Hogarth, 1999b). Overall, the motives and actions of commercial information intermediaries are polarised by the profit-maximisation goal (Chien & DeVaney, 2001; Reserve Bank of Australia, 1999; Shubhasis, 2004), and such motives and actions are not necessarily congruent with the consumption utility maximisation objectives of consumers.

In summary, the literature gives indications that information intermediaries are distinct in composite and informational orientation. As such, it is posited in this study that alternative information intermediaries have a distinct influence on consumer credit decisions and choices. Next to be discussed are the research hypotheses

THE RESEARCH HYPOTHESES

Consultation of financial information intermediaries is a conscious goal-oriented exercise directed at augmenting, clarifying and/or evaluating available information relating to a credit choice decision with a purpose to optimise financial wellbeing (Lee & Cho, 2005; Lee & Hogarth, 2000a, 2000b). Considering that credit rationalisation results in 'outcomes that increase one's utility or provide value by facilitating achievement of higher level goals and values' (Schmidt & Spreng, 1996, pp. 251), borrowers are therefore motivated to consult financial information intermediaries prior to taking decisions (Chang & Hanna, 1992; Lee & Hogarth, 2000a, 2000b; Srinivasan & Ratchford, 1991). It therefore follows that borrowers who engage in an extended and effortful consultation of financial information intermediaries prior to acquiring an instrument of credit intensify their credit rationalisation process. There are three principal classes of financial information intermediaries that were identified from the literature; Personal intermediary, Independent intermediary and Commercial intermediary (Capon & Lutz, 1979; Lee & Hogarth, 2000b). It is hence posited that the degree to which financial information intermediaries are used influence the extent to which borrowers rationalise their credit decisions. Thus, it is hypothesised that consumer credit rationalisation is positively related to the influence of each of the three financial information intermediaries on the choice of credit instrument. Thus:

> *H1: consumer credit rationalisation is positively related to the influence of personal financial information intermediary on the choice of credit instrument.*

> *H2: consumer credit rationalisation is positively related to the influence of independent financial information intermediary on the choice of credit instrument.*

> *H3: consumer credit rationalisation is positively related to the influence of commercial financial information intermediary on the choice of credit instrument.*

Consumers gather information from varied financial information intermediaries that are heterogeneous (Lee & Hogarth, 1999a; Malbon, 2001; Ratchford et al., 2001). Further, financial information intermediaries were found to embody different traits and thereby possess different proficiencies (Lee & Hogarth, 1999a; Schmidt & Spreng, 1996) and advice (Capon & Lutz, 1979; Malbon, 2001; OECD, 1992). In this regard, it is posited that each financial information intermediary has a measurably distinct influence on consumer financial decisions. The interaction among the three identified information intermediaries and their influence on consumer credit decisions is depicted in Figure 1.

It is hypothesised in the proposed model that the influence of the Personal information intermediary on consumer credit decision is significantly different from that of Commercial and Independent intermediaries. Also, that the influence of the Independent information intermediary is significantly different from that of the Commercial intermediary. Thus;

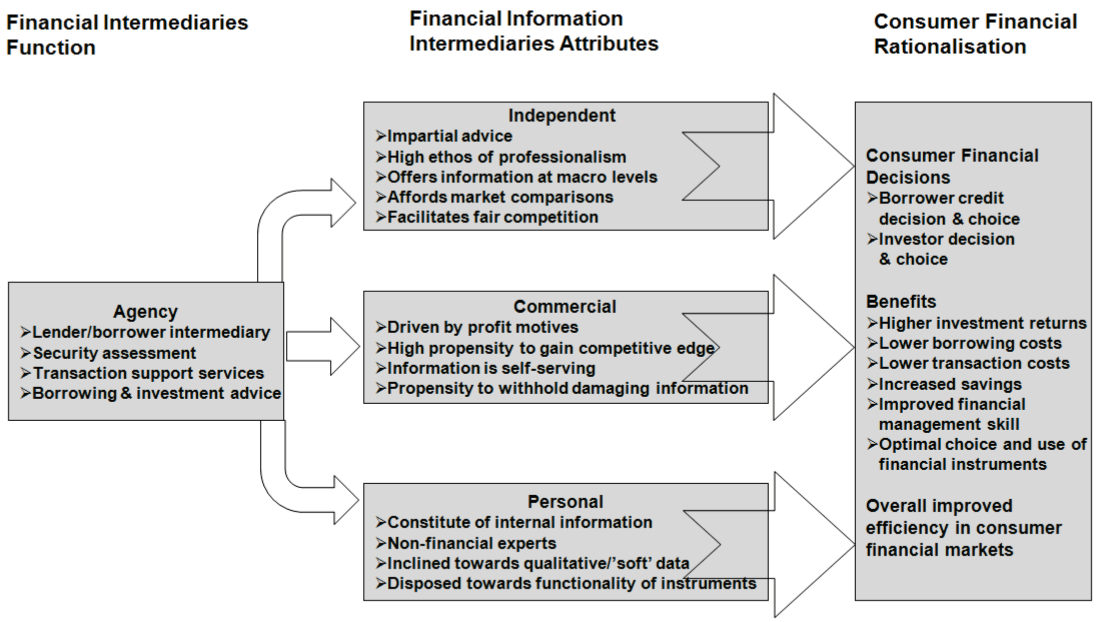
> *H4: There is a difference between the influence of Commercial and Personal information intermediaries towards consumer credit decision.*

> *H5: There is a difference between the influence of Personal and Independent information intermediaries towards consumer credit decision.*

> *H6: There is a difference between the influence of Independent and Commercial information intermediaries towards consumer credit decision.*

The theoretical model depicted in Figure 1 indentifies the element of agency as one of the primary functions of financial intermediaries. The agency function encapsulates the role of production, exchange and use of financial information with a view to add value to the decision and choice of the end-user. There are three primary financial information intermediaries that are identified, each with different traits and proficiencies as relating to informational content. In this regard, consumer financial decisions and choices, and indeed the overall efficiency of the consumer financial markets, are influenced by the degree of dominance of and reliance on each of the financial information intermediaries within a given economic environment.

FIGURE 1
A THEORETICAL MODEL OF THE INFLUENCE OF FINANCIAL INFORMATION INTERMEDIARIES ON CONSUMER CREDIT RATIONALISATION



RESEARCH METHOD, DATA AND MAJOR FINDINGS

A questionnaire survey was conducted to investigate consumer credit behaviour as relating to the rationalisation of vehicle finance and choice of financial instruments and services by individuals. The process of drafting a sampling plan for this research was guided by principles of population representation and research generalisability. To achieve this objective, a quasi-random sampling method was adopted in gathering primary data from the general members of the public (Hair, Babin, Money, & Samouel, 2003). The targeted population were individuals who had acquired credit to purchase a vehicle in the preceding 3-year period. A timeframe was imposed on the period after the acquired credit with a purpose to enhance data validity by, for example, minimising on the effect of selective memory and memory decay on the reliability of measures used (Guo, 2001). Other practical measures taken to enhance data validity included adopting measures oriented toward capturing particular credit acquisition behaviour, as opposed to passive behaviour. Also, the questionnaire placed emphasis on the credit generally considered significant by the respondent. Schmidt and Spreng (1996) argued that such measures enhance data validity.

The study strived to achieve representation across the demographics divide of the targeted population by:

i. conducting the research in the city of Melbourne, Australia. The city offered a population demographic distribution that is diverse and comparable to other Australian major cities (Australian Bureau of Statistics, 2006)
ii. conducting the research over a reasonably large geographic area, covering twelve postal codes;
iii. covering a variety of community centres, including schools, social clubs and a mall.

Potential respondents were randomly intercepted in various locations and requested to complete a questionnaire. In consideration of the sensitivity nature of the subject matter being investigated and the advantages of the personally-administered questionnaire technique, this survey technique was found most appropriate and thus adopted. A total of 600 questionnaires were distributed and completed by respondents, with 176 cases found usable for this research. The questions used were part of a larger survey.

The average credit amount acquired was AU$ 24,621. The sample constituted of 55.5% males and 44.5% females, with many of the respondents (32.1%) falling into the $40,000 - $59,000 annual income before tax bracket. The sample descriptive statistics are shown in Table 1.

Overall, the credit amount acquired was considered substantial to warrant a fairly reasonable degree of financial rationalisation on the part of the respondents. Also, given the substantiality of the amount of credit sourced, coupled with the relatively short time lapse between credit acquisition and participation in the survey, it was reasoned that the potential effect of 'memory decay' on the collected data had been minimised.

TABLE 1
SAMPLE DESCRIPTIVE STATISTICS

Factor	Categories	Frequency	Percent (%)	Cumulative %
Gender	Male	86	55.5	55.5
	Female	69	44.5	100
Age Group	20 yrs and below	10	5.7	5.7
	21-30 yrs	27	15.4	21.1
	31-40yrs	66	37.7	58.9
	41-50yrs	60	34.3	93.1
	51-60 yrs	10	5.7	98.9
	Over 60 yrs	2	1.1	100
Annual Income Before Tax	Less than $13,000	11	6.9	6.9
	$13,000 - 24,000	8	5.0	11.9
	25,000 - 39,000	36	22.6	34.6
	$40,000 - 59,000	51	32.1	66.7
	$60.000 - 79,000	38	23.9	90.6
	$80,000 - 104,000	10	6.3	96.9
	$105,000 or more	5	3.1	100
Highest Level of Education	Secondary school or less	29	17.0	17.0
	Post-secondary school diploma or certificate	21	12.3	29.2
	Trade qualification	65	38.0	67.3
	University bachelors degree	43	25.1	92.4
	University higher degree	13	7.6	100
Credit amount	$10,000 and less	36	25.7	25.7
	$10,001 - $18,000	21	15.0	40.7
	$18,001 - $25,000	33	23.6	64.3
	$25,001 - $40,000	28	20.0	84.3
	$40,001 and more	22	15.7	100

Measures

Two key guiding principles were used in the development of the key factors. First, to the extent possible, existing measures were adopted and adapted to the study. Second, the factors were measured using multi-item measures. Multi-item measures have the advantage of increasing scale reliability and validity, and of capturing the multiple dimensions associated with a factor (Hair, Black, Babin, Anderson, & Tatham, 2006; Schumacker & Lomax, 2004). All items were measured on the recommended 7-point semantic differential scale (Schumacker & Lomax, 2004; Wong & Merrilees, 2007). The Cronbach's coefficient alpha was used to measure for inter-item stability and consistency (Hair et al., 2006; Pallant, 2001). As a guide, Cronbach's alpha values greater than or equal to 0.6 were considered acceptable (Carmines & Zeller, 1979; Robinson, Shaver, & Writghtsman, 1991), with values greater that 0.7 preferred (Hair et al., 2006). The Cronbach's coefficient alpha ranged 0.62 - 0.91, and thus scale reliability was confirmed. Factors were thereafter computed from their respective items. Table 2 presents the results of the reliability test for each factor and the corrected item-total correlation for each of the items.

TABLE 2
RELIABILITY TEST RESULTS

Factor	Cronbach's Alpha	Items	Corrected Item-Total Correlation	Items References
Consumer Credit Rationalisation	.91			
		Interest Rate	.71	(Adkisson & McFerrin, 2005; Bernthal, Crockett, & Rose, 2005; Lee & Hogarth, 2000a, 2000b)
		Instalment Size	.76	
		Interest Variability	.74	
		Annual Percentage Rate	.77	
		Broker Fees	.69	
		Application Fees	.70	
		Other Credit Terms	.66	
Personal Information Intermediary	n/a	*Friend, Relative or Colleague	n/a	*(Capon & Lutz, 1979; Heaney & Goldsmith, 1999; Lee & Hogarth, 1999a, 2000a)
Independent Information Intermediary	.87			
		*Independent Consultant	.77	
		*Independent Reports	.77	
Commercial Information intermediary	.62			
		*Commercial Adverts	.39	
		*Credit Providers	.47	
		*In-store Information	.43	

Financial Information Intermediaries

Financial Information Intermediaries captured the various sources of information that borrowers used prior to acquiring credit and the extent to which each information source influenced the credit decision thereafter taken. Respondents were asked to indicate the degree to which each information source influenced the decision to choose the credit facility used to finance the purchase of a vehicle. Sources of information were prompted by (Capon & Lutz, 1979; Heaney & Goldsmith, 1999; Lee & Hogarth, 1999a, 2000a):

i. personal financial information intermediary: friend, relative and colleague;
ii. independent financial information intermediary: independent financial consultant, consumer report, article and guide (Cronbach's alpha = 0.87);
iii. commercial financial information intermediary: commercial advert on radio, TV, newspaper, magazine and internet, credit provider, bank, retailer and salesperson (Cronbach's alpha = 0.62).

Overall, a six-item scale was used; one item for the Personal Financial Information Intermediary, two for the Independent Financial Information Intermediary and three for the Commercial Financial Information Intermediary. The distribution of the items across information intermediaries was reflective of their breadth in terms of dimensions, with commercial information intermediary being the most extensive (Beatty & Smith, 1987; Lee & Hogarth, 2000a; Moorthy, Ratchford, & Talukdar, 1997).

Consumer Credit Rationalisation

The concept of Credit Terms Considered was conceptualised using the notion of the price of money, particularly considering the important role played by credit terms on consumer credit decisions and credit cost rationality (Adkisson & McFerrin, 2005; Bridges & Disney, 2004; Brown, Garino, Taylor, & Price, 2005). The extent to which an individual considered specific credit terms prior to acquiring vehicle finance was used as an indicator for consumer credit rationalisation. Credit terms were prompted by:

i. interest rate
ii. instalment size
iii. interest variability
iv. annual percentage rate
v. broker fees
vi. application fees
vii. other credit terms

The seven items captured the dimensions of interest-related and non-interest-related credit properties that different credit users seek (Adkisson & McFerrin, 2005; Bernthal et al., 2005; Lee & Hogarth, 2000a, 2000b). The Consumer Credit Rationalisation factor scored a Cronbach's alpha of 0.91. The research hypotheses were next tested.

Results

The influence of the three financial information intermediaries on consumer credit rationalisation was examined by performing the standard multiple regression analysis, wherein Consumer Credit Rationalisation was the dependent variable and the three financial information intermediaries were the independent variables. The standard multiple regression method was used due to lack of both a priori theoretical knowledge and statistical criteria for weighting or ranking the three independent variables (Green, Salkind, & Akey, 2000; Ho, 2006). In this regard, the independent variables were entered simultaneously into the equation.

The correlation between the independent variables ranged between 0.44 and 0.61, with Personal and Independent information intermediaries reporting the highest correlation. The collinearity statistics of tolerance (range: 0.58 – 0.75) and 'VIF' (range: 1.34 – 1.72) indicated values that were within the recommended ranges of greater than 0.10 and less that 10.0 (Ho, 2006), respectively. Further, the ‘condition index’ indicated values that were within the recommended range of less than 15 (Ho, 2006). It was thus concluded that the multicolinearity assumption of regression was satisfied (Pallant, 2001).

The linear combination of Financial Information Intermediaries was found to be significantly related to Consumer Credit Rationalisation, $F (3, 172) = 14.22$, $p < .001$. The sample multiple correlation coefficient was 0.45, resulting in an adjusted R square of 19%. Table 3 presents the coefficients that indicate the relative strength of the individual predictors.

TABLE 3
STANDARD REGRESSION ANALYSIS RESULTS

Independent Variables	Standardized Regression Coefficients	t-values	Sig.
Commercial	.44	5.59	.00
Personal	-.07	-0.84	.40
Independent	.07	0.80	.43

The Commercial information intermediary was the only predictor variable with a statistically significant relationship, hence the strongest, with Consumer Credit Rationalisation ($B = 0.44$, $t = 5.59$, $p < .01$). Next to be ascertained was the distinction in influence among information intermediaries on consumer credit decisions.

The paired-samples t-test was conducted to evaluate the mean differences in the influence of the different classes of financial information intermediaries on consumer choice of credit instruments. Three pairs of means of the financial information intermediaries were tested; Commercial, Personal and Independent. Table 4 shows the results of the paired-samples t-test.

TABLE 4
PAIRED-SAMPLES T-TEST RESULTS

	Paired Differences							
	Mean	Std. Dev	Std. Error Mean	t-value	Sig.		Mean (M)	Std Dev (SD)
Commercial - Personal	.702	1.91	.14	4.89	.00	Commercial	3.44	1.46
Personal - Independent	-.749	1.68	.13	-5.92	.00	Personal	4.14	2.01
Independent - Commercial	.047	1.67	.13	0.37	.71	Independent	3.40	1.73

The results from the analysis indicate a statistically significant difference between two pairs of means: Commercial ($M = 3.44$, $SD = 1.46$) and Personal ($M = 4.14$, $SD = 2.01$) information intermediaries ($t = 4.89$; $df = 175$); $p < 0.01$) and; between Personal and Independent ($M = 3.40$, $SD = 1.73$) information intermediaries ($t = -5.92$; $df = 175$; $p < 0.01$). The difference in the influence of the Independent information intermediary and the influence of the Commercial information intermediary was found not to be statistically significant ($t = 0.37$; $df = 175$; $p > 0.05$). The eta squared statistic, as a measure of effect size, was computed for the two pairs of means that were found significant. The computed values were 0.12 and 0.17, indicating a moderate to large effect size (Cohen, 1988; Pallant, 2001).

Hypothesis Test Results

Hypothesis 1 proposed that consumer credit rationalisation is positively related to the influence of personal financial information intermediary on the choice of credit instrument. The results indicated a standardised regression path coefficient of -0.07 with a t-value of -0.84 that was non-statistically significant at $p > 0.05$. The hypothesis was therefore not supported.

Hypothesis 2 proposed that consumer credit rationalisation is positively related to the influence of independent financial information intermediary on the choice of credit instrument. The results indicated a standardised regression path coefficient of 0.07 with a t-value of 0.80 that was non-statistically significant at $p > 0.05$. The hypothesis was therefore not supported.

Hypothesis 3 proposed that consumer credit rationalisation is positively related to the influence of commercial financial information intermediary on the choice of credit instrument. The results indicated a standardised regression path coefficient of 0.44 with a t-value of 5.59 that was statistically significant at $p < 0.01$. The hypothesis was therefore supported.

Hypothesis 4 proposed that there was a difference between the influence of Commercial and Personal information intermediaries towards consumer credit decisions. The results indicated a t-value of 4.89 that was statistically significant at $p < 0.01$, thus supporting the hypothesis.

Hypothesis 5 proposed that there was a difference between the influence of Personal and Independent information intermediaries towards consumer credit decisions. The results indicated a t-value of 5.92 that was statistically significant at $p < 0.01$. The hypothesis was therefore supported.

Hypothesis 6 proposed that there was a difference between the influence of Independent and Commercial information intermediaries towards consumer credit decisions. The results indicated a t-value of 0.37 that was not statistically significant at $p > 0.05$, thus the hypothesis was not supported.

Some Analysis

It was established from the literature that financial information intermediaries are heterogeneous in form and substance. There is a replete of studies that have mapped out typologies of information intermediaries and patterns of consumers use of these information intermediaries. However, the extent to which different information intermediaries distinctly influence consumer financial decisions and choices is not well understood. It was the objective of this study to examine this phenomenon.

In this regard, it was first posited that the three distinct classes of information intermediaries, Personal, Independent and Commercial, positively influenced consumer credit rationalisation. The standard regression analysis results indicated the Commercial information intermediary to be the only source that significantly influenced consumer credit rationalisation. Personal and Independent sources did not significantly influence consumer rationalisation of vehicle finance decisions.

Second, to the extent that information intermediaries are heterogeneous, it was posited that different information intermediaries distinctly influence consumer credit decisions. The paired-samples t-test results found two, out of a possible three, pairs of information intermediaries to be significantly distinct in so far as influencing consumer credit decisions. In particular, the influence of the Personal source was found to be distinct from that of the Commercial source. Also, the influence of the Independent source was found to be distinct from that of the Personal source. No significant difference was found between the influence of the Independent and Commercial sources on consumer credit decisions.

The research findings confirm the dominance of the commercial financial information intermediary in the consumer credit markets. The commercial information intermediary was found to be the only source that significantly and strongly influenced consumer credit decisions, congruent with observations made in previous research indicating that much of the financial information in the public domain is generated and supplied by commercial sources (OECD, 1992) and that these entities have a strong commercial motive to disseminate information (Capon & Lutz, 1979; Lee & Hogarth, 1999a; Mattila & Wirtz, 2002).

Another research finding from the study was the evidence to suggest that different financial information intermediaries influence consumer credit decisions and choices in a peculiar fashion, more so between the Personal and Independent source, and between the Personal and Commercial sources. The findings suggested that the respondents did not distinguish between the Independent and Commercial sources in terms of the influence they had on their credit decisions. A possible explanation for this anomaly could lie in the significance of the level of credit investigated on the respondents' welfare. It has been argued in previous studies that the significance of a purchase impacts a consumer's motivation to rationalise their decisions (Fodness & Murray, 1999; Lin & Lee, 2004; Schmidt & Spreng, 1996). Possibly, the level of the credit investigated in this study may have not been large enough, compared to a mortgage acquisition for example, to warrant the highest-order of cognitive engagement that would have forced respondents to distinguish between the influences of the two financial information intermediaries.

CONCLUSIONS AND PRACTICAL IMPLICATIONS

This study expands on the literature in financial information intermediaries and consumer behaviour by proposing and empirically testing the distinct influences of different financial information intermediaries on consumer rationalisation. It emerged from the study findings that information intermediaries disseminate data that has distinct informational content, and hence the different impact on consumer decisions. Therefore, any effort that is directed at addressing challenges in consumer markets, for instance consumer over-indebtedness and bankruptcy in the credit markets (Beder, 2009; Crotty, 2009), should incorporate the impact of these information intermediaries. In particular, financial information intermediaries play a significant role in consumer credit decisions and credit rationality.

In previous studies, consumers have been found to limit the number of information intermediaries they consult during a pre-purchase search activity. This study found that the different financial information intermediaries influence borrowers' credit decisions differently. Following from the above, it therefore becomes imperative for policymakers and other stakeholders to fully comprehend the nature of these financial information intermediaries. An understanding of the workings of financial information intermediaries facilitates the maximisation of the impact of communication/marketing strategies of policymakers/stakeholders on the consumer credit market by, for instance, engaging complementary measures. This is particularly crucial considering that each financial information intermediary has a unique perspective to credit and operates differently (Capon & Lutz, 1979; Lee & Hogarth, 1999a; Murray, 1991; OECD, 1992). Thus, attention should be directed toward:

i. ascertaining the most influential financial information intermediary;
ii. assessing the quality of information disseminated by the information source;
iii. assessing the accessibility and adequacy of the information source;
iv. developing and implementing corrective measures directed at addressing identified shortcomings of the information intermediary.

This approach provides an additional dimension towards a more comprehensive solution in curbing the global problem of consumer over-indebtedness and bankruptcy (Adkisson & McFerrin, 2005; Bridges & Disney, 2004; Brown et al., 2005).

The study had some limitations. First, the sample size was small, an issue that may limit the generalisability of the findings (Hair et al., 2006; Schumacker & Lomax, 2004). There were some hypotheses that were not supported by the data. From a theoretical perspective, there is no apparent a priori explanation for this anomaly. It is not particularly obvious why the Independent and Commercial information intermediaries were not found to have distinct influences on consumer credit choices, more so that literature suggested heterogeneity. Further research is required in this area. Also, research should be conducted on other different credit instruments to ascertain the extent of the generalisability of the study findings across credit instruments.

REFERENCES

Adkisson, R. V., & McFerrin, R. (2005). Living Large: Evolving Consumer Credit Institutions and Privately Induced Transfer Payments. *Journal of Economic Issues, 39*(2), 447-454.

Australian Bureau of Statistics. (2006). (Publication. Retrieved 13 April 2009, from Australian Bureau of Statistics: http://www.censusdata.abs.gov.au/

Beatty, S. E., & Smith, S. M. (1987). External Search Effort: An Investigation Across Several Product Categories. *Journal of Consumer Research, 14*(1), 83-95.

Beder, S. (2009). Neoliberalism and the Global Financial Crisis. *Social Alternatives, 28*(1), 17-21.

Bernthal, M. J., Crockett, D., & Rose, R. L. (2005). Credit Cards as Lifestyle Facilitators. *Journal of Consumer Research, 32*(1), 130-145.

Brealey, R. A., Myres, S. C., & Marcus, A. J. (2007). *Fundamentals of Corporate Finance* (5 ed.). Boston: McGraw-Hill.

Bridges, S., & Disney, R. (2004). Use of Credit and Arrears on Debt Among Low-Income Families in the United Kingdom. *Fiscal Studies, 25*(1), 1-25.

Brigham, E. F., & Houston, J. F. (2004). *Fundamentals of Financial Management* (Consice 4 ed.). Ohio: South-Western, Thomson Learning.

Brown, S., Garino, G., Taylor, K., & Price, S. W. (2005). Debt and Financial Expectations: An Individual- and Household-Level Analysis. *Economic Enquiry, 43*(1), 100-120.

Capon, N., & Lutz, R. J. (1979). A Model and Methodology for the Development of Consumer Information Programs. *Journal of Marketing, 43*(1), 58-67.

Carmines, E. G., & Zeller, R. (1979). *Reliability and Validity Assessment*. Beverley Hills, CA Sage Publications.

Chang, R. Y., & Hanna, S. (1992). Consumer Credit Search Behaviour. *Journal of Consumer Studies and Home Economics, 16*, 207-227.

Chien, Y., & DeVaney, S. A. (2001). The Effects of Credit Attitude and Socioeconomic Factors on Credit Card and Installment Debt. *The Journal of Consumer Affairs, 35*(1), 162-179.

Claxton, J. D., Fry, J. N., & Portis, B. (1974). A Taxonomy of Prepurchase Information Gathering Patterns. *Journal of Consumer Research, 1*(3), 35-42.

Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences* New York: Academic Press.

Crotty, J. (2009). Structural Causes of the Global Financial Crisis: A Critical Assessment of the 'New Financial Architecture'. *Cambridge Journal of Economics, 33*(4), 563-580.

Fodness, D., & Murray, B. (1999). A Model of Tourist Information Search Behavior. *Journal of Travel Research, 37*(3), 220-230.

Freiden, J. B., & Goldsmith, R. E. (1989). Prepurchase Information-seeking for Professional Services. *Journal of Services Marketing, 3*(1), 45-55.

Green, S. B., Salkind, N. J., & Akey, T. M. (2000). *Using SPSS for Windows - Analyzing and Understanding Data* (2 ed.). New Jersey: Prentice Hall.

Guo, C. (2001). A Review on Consumer External Search: Amount and Determinants. *Journal of Business Psychology, 15*(3), 505-519.

Hair, J. F., Babin, B. J., Money, A. H., & Samouel, P. (2003). *Essentials of Business Research Methods*. United States: John Wiley & Sons, Inc.

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). *Multivariate Data Analysis* (6 ed.). New Jersey: Pearson Prentice Hall.

Heaney, J., & Goldsmith, R. E. (1999). External Information Search for Banking Services. *International Journal of Bank Marketing, 17*(7), 305-323.

Ho, R. (2006). *Handbook of Univariate and Multivariate Data Analysis and Interpretation with SPSS*. Florida: Chapman and Hall.

Kiel, G. C., & Layton, R. A. (1981). Dimensions of Consumer Information Seeking Behaviour. *Journal of Marketing Research, 18*(2), 233-239.

Kim, T., Dunn, L. F., & Mumy, G. E. (2005). Bank Competition and Consumer Search Over Credit Card Interest Rates. *Economic Inquiry, 43*(2), 344-353.

Klein, L. R., & Ford, G. T. (2003). Consumer Search for Information in the Digital Age: An Empirical Study of Prepurchase Search for Automobiles. *Journal of Interactive Marketing, 17*(3), 29-49.

Krauss, C. A. (1990). Consumer Credit Education in the ‘90s. *Credit, 16*(4), 19-23.

Kulviwat, S., Guo, C., & Engchanil, N. (2004). Determinants of Online Information Search: A Critical Review and Assessment. *Internet Research, 14*(3), 245-253.

Lee, J., & Cho, J. (2005). Consumers’ Use of Information Intermediaries and the Impact on their Information Search Behavior in the Financial Market. *The Journal of Consumer Affairs, 39*(1), 95-120.

Lee, J., & Hogarth, J. M. (1998). Shopping for a Credit Card: Does Information Search Pay Off? *Consumer Interests Annual, 44*, 30-35.

Lee, J., & Hogarth, J. M. (1999a). The Price of Money: Consumers’ Understanding of APRs and Contract Interest Rates. *Journal of Public Policy and Marketing, 18*(1), 66-76.

Lee, J., & Hogarth, J. M. (1999b). Returns to Information Search: Consumer Mortgage Shopping Decisions. *Financial Counseling and Planning, 10*(1), 49-66.

Lee, J., & Hogarth, J. M. (2000a). Consumer Information Search for Home Mortgages: who, what, how much, and what else? *Financial Services Review, 9*(3), 277-293.

Lee, J., & Hogarth, J. M. (2000b). Relationships Among Information Search Activities When Shopping for a Credit Card. *The Journal of Consumer Affairs, 34*(2), 330-360.

Lin, Q. C., & Lee, J. (2004). Consumer Information Search When Making Investment Decisions. *Financial Services Review, 13*(4), 319-332.

Locander, W. B., & Hermann, P. W. (1979). The Effect of Self-Confidence and Anxiety of Information Seeking in Consumer Risk Reduction. *Journal of Marketing Research, 16*(2), 268-274.

Malbon, J. (2001). Shopping for Credit: An Empirical Study of Consumer Decision-Making. *Australian Business Law Review, 29*(1), 44-64.

Mattila, A. S., & Wirtz, J. (2002). The Impact of Knowledge Types on the Consumer Search Process: An Investigation in the Context of Credence Services. *International Journal of Service Industry Management, 13*(3/4), 214-230.

Mitra, K., Reiss, M. C., & Capella, L. M. (1999). An Examination of Perceived Risk, Information Search and Behavioral Intentions in Search, Experience and Credence Services. *The Journal of Services Marketing, 13*(3), 208-228.

Moorthy, S., Ratchford, B. T., & Talukdar, D. (1997). Consumer Information Search Revisited: Theory and Empirical Analysis. *Journal of Consumer Research, 23*(4), 263-277.

Murray, K. B. (1991). A Test of Services Marketing Theory: Consumer Information Acquisition Activities. *Journal of Marketing, 55*(1), 10-25.

OECD. (1992). *Consumer Information About Financial Services*. Paris: Organisation for Economic Co-operation and Development.

Pallant, J. (2001). *SPSS Survival Manual*. Canberra: Allen and Unwin.

Ratchford, B. T., Talukdar, D., & Lee, M.-S. (2001). A Model of Consumer Choice of the Internet as an Information Source. *International Journal of Electronic Commerce, 5*(3), 7-21.

Reserve Bank of Australia. (1999). *Consumer Credit and Household Finances*: Reserve Bank of Australia.

Rischkowsky, F., & Doring, T. (2008). Consumer Policy in a Market Economy: Considerations from the Perspective of the Economics of Information, the New Institutional Economics as well as Behavioural Economics. *Journal of Consumer Policy, 31*(3), 285-313.

Robinson, J. P., Shaver, P. R., & Writghtsman, L. S. (1991). Criteria for Scale Selection and Evaluation. In J. P. Robinson, P. R. Shaver & L. S. Writghtsman (Eds.), *Measures of Personality and Social Psychological Attitudes*. San Diago, CA: Academic Press.

Santomero, A. M. (2001). Perspectives on Research Issues in Consumer Behaviour. *Business Review - Federal Reserve Bank of Philadelphia, Third Quarter*, 1-4.

Schmidt, J. B., & Spreng, R. A. (1996). A Proposed Model of External Consumer Information Search. *Journal of the Academy of Marketing Science, 24*(3), 246-256.

Schumacker, R. E., & Lomax, R. G. (2004). *The Beginner's Guide to Structural Equation Modeling* (2nd ed.). New Jersey: Lawrence Erlbaum Associates, Inc.

Shubhasis, D. M. A. (2004). *Essays on Consumer Lines of Credit: Credit Cards and Home Equity Lines of Credit.* Unpublished PhD Dissertation, The Ohio State University.

Srinivasan, N., & Ratchford, B. T. (1991). An Empirical Test of a Model of External Search for Automobiles. *Journal of Consumer Research, 18*(2), 233-242.

Stigler, G. J. (1961). The Economics of Information. *The Journal of Political Economy, 69*(3), 213-225.

Urbany, J. E., Dickson, P. R., & Wilkie, W. L. (1989). Buyer Uncertainty and Information Search. *Journal of Consumer Research, 16*(2), 208-214.

Westbrook, R. A., & Fornell, C. (1979). Patterns of Information Source Usage Among Durable Goods Buyers. *Journal of Marketing Research, 16*(3), 303-312.

Wong, H. Y., & Merrilees, B. (2007). Closing the Marketing Strategy to Performance Gap: The Role of Brand Orientation. *Journal of Strategic Marketing, 15*(5), 387-402.

Zhu, L. Y., & Meeks, C. B. (1994). Effects of Low Income Families' Ability and Willingness to Use Consumer Credit on Subsequent Outstanding Credit Balances. *The Journal of Consumer Affairs, 28*(2), 403-422.