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THE INFLUENCE OF LIFE STAGES ON THE USAGE OF FINANCIAL PRODUCTS BY SOUTH AFRICAN HOUSEHOLDS

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Abstract

South Africa has a well developed financial market providing savers with numerous financial products of which the household's usage of these products forms the focus of this exploratory study. The first phase of the study used Lindqvist's saving motives hierarchy as a basis to develop a financial product usage hierarchy. Products used by South African households were then classified into four levels as per the hierarchy. Ando and Modigliani's life-cycle hypothesis was used to determine if life stages have an impact on the financial products used for each of the levels. The descriptive analyses were complemented by a product usage rating index. The index confirmed the findings of the descriptive analyses namely, that life stages do influence the usage of financial products. "At-home singles" were identified as the group with the lowest usage of financial products for all four saving product hierarchy levels. The product usage rating index found that "Young couples" had the highest usage levels for both cash management products (level 1) and basic savings products (level 3). "Mature families" had the highest ranking in the product usage rating index for precautionary products (level 2) and wealth management products (level 4).

Keywords

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| <ul style="list-style-type: none"> • Savings • Financial product usages • Life stages | <ul style="list-style-type: none"> • Saving motives hierarchy • Saving product hierarchy |
|--|--|

1 INTRODUCTION

Various studies have indicated that South Africans are not saving enough (South African Reserve Bank 2009; BMR 2009). Studies into the field of saving have identified several dimensions and sub-fields. The majority of economic theories on savings are based on the Fisher's discounted utility model (1930), which proposes that the value a person receives in future is less valuable now than what it will be later. Using this basic model, Keynes (1936) postulated that a person's expenses will increase as income increases but the increase in expenditure will not be as much as the increase in income, resulting in saving. The effect of a person's decision not to spend all his income, giving rise to saving, results in an increase in the assets the person owns.

International studies have found various motivations for savings. Other studies expanded on the impact of these motives on financial product usage (Fisher & Montalto 2010, Keynes 1936, Canova, Rattazzi, & Webley 2005). The saving motives are best described as savings objectives by savers. International financial planning professional organisations state that when evaluating the importance of each of the saving motives and selecting an appropriate financial product a comprehensive financial plan should be developed (The Financial Planning Institute of South Africa 2008:1; Certified Financial Planner Board of Standards Inc. 2004:6-7; Financial Planners Standards Council of Canada 2006:1-3; Financial Planning Association of Australian Limited 2006:1; Financial Planning Association of Singapore 2006:2; Financial Planning Association of Malaysia 2006:1-2). The financial plan will ensure that the client's financial objectives are met and can be used to help increase a person's savings.

South African financial advisors have traditionally used a risk analysis to determine which investment products to include in a financial plan. Recently the life stage approach to financial planning has gained ground in South Africa and internationally. In the life stage approach to financial planning the financial products to be included in a financial plan is based on the different stages a person is faced with during his life time (Ando & Modigliani 1963; Modigliani & Brumberg, 1954; Goodall & King, 2009).

This study used the 2009 South African Advertising Research Foundation's All Media and Products Survey (SAARF AMPS) data to determine whether the household's financial life stage has an impact on the financial products used by the household (SAARF 2010).

2 RESEARCH OBJECTIVE

South Africa has a well developed financial market providing savers and investors with numerous financial products. In this exploratory study the following research question will be investigated:

Do the different life stages of South African households influence the financial products used in each level of the financial product usage hierarchy?

3 SAVING MOTIVES

A number of international studies investigated the motives for saving and how these motives relate to the financial products used. These studies found Friedman's 'permanent income hypothesis' (1957) could be applied to saving motives in that the financial products acquired relates directly to the household circumstances, for example age of the household head (Canova et al 2005; Gunnarson & Wahlund, 1997; Lindqvist, 1981; Warneryd, 1989, 1999). Stafford, Kasulis, and Lusch (1982) found that due to the limited resources available to satisfy all their saving motives, individuals acquire the financial products that satisfy the most important motives first. The analysis of the products used found that households with similar characteristics tended to use similar product (Stafford et al. 1982).

The first study into the motives for saving was done by Keynes (1936). Keynes (1936) identified eight main reasons for saving, namely: precautionary, life stage, inter-temporal substitution, improvement, independence, enterprise and avarice motives. Studies by Smith (1999) found that these motives are inter-related and different actions can be taken to satisfy more than one motive simultaneously.

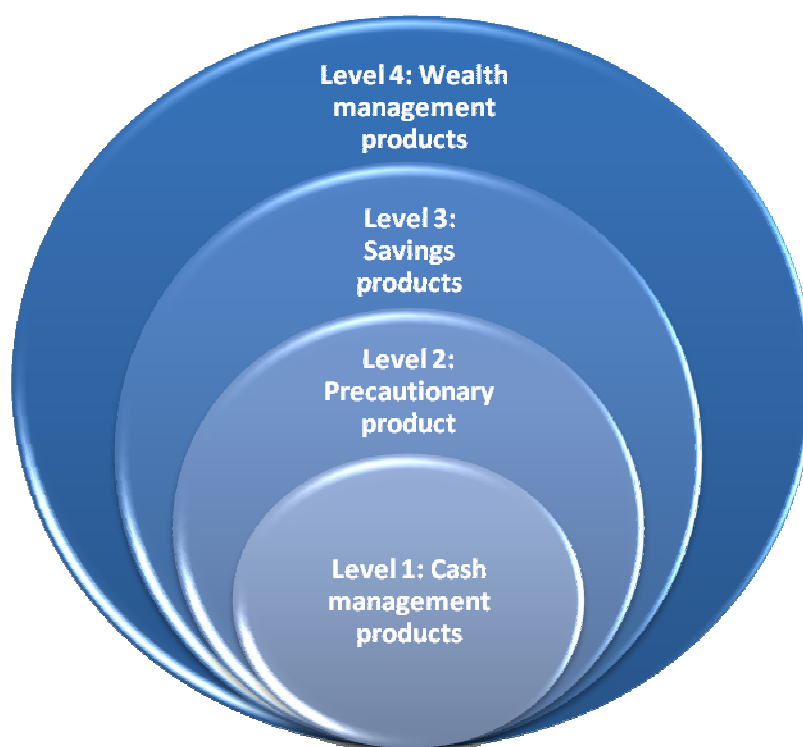
After investigating the savings behaviour of households, Lindqvist (1981) developed the following saving motives hierarchy to describe the order in which households acquire financial products:

- Level 1: cash management motive - involving short-term financial issues, such as direct payment for transactions.
- Level 2: the precautionary motive - households develop a financial reserve for unexpected expenditures.
- Level 3: the down-payment motive - accumulation of financial deposits for buying a house, a car or durables.
- Level 4: wealth management motive - incorporating enterprise and investing assets.

Using the saving motives hierarchy DeVaney, Anong & Whirl (2007) investigated factors influencing movement from a lower to a higher level. Although a number of factors were identified for movement between the different levels there were three factors that were found to be very important for all the levels: firstly, the age of the head of the household, secondly, the family size and lastly, the length of the planning horizon.

Using Lindqvist's saving motives hierarchy a financial product usage hierarchy was developed to be used as basis for grouping the South African financial products evaluated in the study (see figure 1). Table 1 contains the descriptions of the different levels of the financial product usage hierarchy.

FIGURE 1: FINANCIAL PRODUCT USAGE HIERARCHY



Source: own

TABLE 1: DESCRIPTIONS OF THE DIFFERENT LEVELS OF THE FINANCIAL PRODUCT USAGE HIERARCHY

Financial product usage level	Description of product
Level 1: Cash management products	Short-term/transactional financial products
Level 2: Precautionary products	Financial products to prepare for unexpected expenses
Level 3: Basic savings products	These financial products enable a person to save to meet the down-payment motive.
Level 4: Wealth management products	Long-term investment products aimed at creating or maintaining wealth

Source: own

By applying the developed financial product usage hierarchy to the households' financial products, it can be determined if life stages have an impact on the financial products used in South Africa.

4 FINANCIAL LIFE-STAGES

This study aims to determine what effect the financial life stages of a household have on the financial products the household uses. The study uses the life-cycle hypothesis developed by Ando & Modigliani (1963) as basis for the analysis. This hypothesis assumes that individuals aim to consume a constant percentage of the present value of their life income.

Before considering the financial life stage of a household it is important to first look at the human life cycle. Swart (2009:9) describes the human life cycle as: the youth years (20-30); family years (30-40); career years (40-50); pre-retirement years (50-60) and retirement years (55⁺). Applying the life-cycle hypothesis to the human life cycle it is clear that people should save during the family, career and pre-retirement years to provide for retirement.

International studies investigating patterns in financial product usage came to contradicting conclusions. Paas & Molenaar (2005) and Bijmolt, Pass & Vermunt (2004) found that households do not acquire financial products in the same order. Whilst studies by Dickenson & Kirzner (1986); Kamakura, Ramaswami & Srivastava (1991); Soutar & Cornish-Ward (1997) and Stafford et al. (1982) did find a common order confirming the life cycle hypothesis.

Internationally and in South Africa different authors have different descriptions of the financial life stages of a person. The majority of studies do however agree that the financial needs of a person differs depending on the life stage they are in (Bijmolt, et al. 2007, Financial Planning Association, 2006b; Old Mutual, 2005a; Wheelwright, 2003:62-68; Life Officers' Association, 2002c, Swart 2002). According to Swart (2002) when moving through the life stages financial needs will: stay constant (food, clothing, accommodation), increase (cost of living), decrease (mortgage to be paid), fluctuate (emergency situations in a household), be permanent (estate duty or provision for

retirement), or be temporary (a child at university or a bank loan to be repaid). From the review of these studies there is an indication that at different life stages, different saving motives will be more important than others. Therefore, it can be expected that even though all financial products should be used in each of the life stages, some will be used more than others as saving motives will differ between each life stage. Table 2 provides the life stage definitions used in this study, based on the AMPS descriptions (SAARF, 2010). It also incorporates what product levels (as per the financial product usage hierarchy) are expected to be most used by the households for that particular life stage.

TABLE 2: FINANCIAL LIFE STAGES

Life-stage	Characteristics	Expected product level most used
At-Home Singles (AHS)	<ul style="list-style-type: none"> • Up to 34 years old • Live with parents • Not Married/ Not Living together • Do not have any dependent children in the household (own or other children (up to age 21)) that the respondent is responsible for 	<ul style="list-style-type: none"> • Level 1
Young Independent Singles (YIS)	<ul style="list-style-type: none"> • Up to 34 years old • Not Living with parents • Not Married/Not Living together • Do not have any dependent children in the household that the respondent is responsible for 	<ul style="list-style-type: none"> • Level 1 • Level 2
Mature Singles (MS)	<ul style="list-style-type: none"> • 35+ years old • Not Married/Not Living together • Do not have any dependent children in the household that the respondent is responsible for 	<ul style="list-style-type: none"> • Level 1 • Level 2 • Level 3 • Level 4

Life-stage	Characteristics	Expected product level most used
Young Couples (YC)	<ul style="list-style-type: none"> • Up to 49 years old • Married/Living together • No dependent children in the household that they are responsible for 	<ul style="list-style-type: none"> • Level 1 • Level 2 • Level 3
Young Family (YF)	<ul style="list-style-type: none"> • Married/Living together • With at least one dependent child under 13 years in the household that they are responsible for 	<ul style="list-style-type: none"> • Level 2 • Level 3
Single Parent Family (SPF)	<ul style="list-style-type: none"> • Not married/Not Living together • With dependent children in the household that they are responsible for 	<ul style="list-style-type: none"> • Level 2 • Level 3
Mature Family (MF)	<ul style="list-style-type: none"> • Married/Living together • With no dependent children under 13 years in the household that they are responsible for, but with dependent children over the age of 13 years in the household 	<ul style="list-style-type: none"> • Level 2 • Level 3 • Level 4
Mature Couples (MC)	<ul style="list-style-type: none"> • 50+ years old • Married/Living together • No dependent children in the household that they are responsible for 	<ul style="list-style-type: none"> • Level 4

Source: SAARF, 2010

These life stages will be used to analyse product usage by different households.

5 METHODOLOGY

Households' data

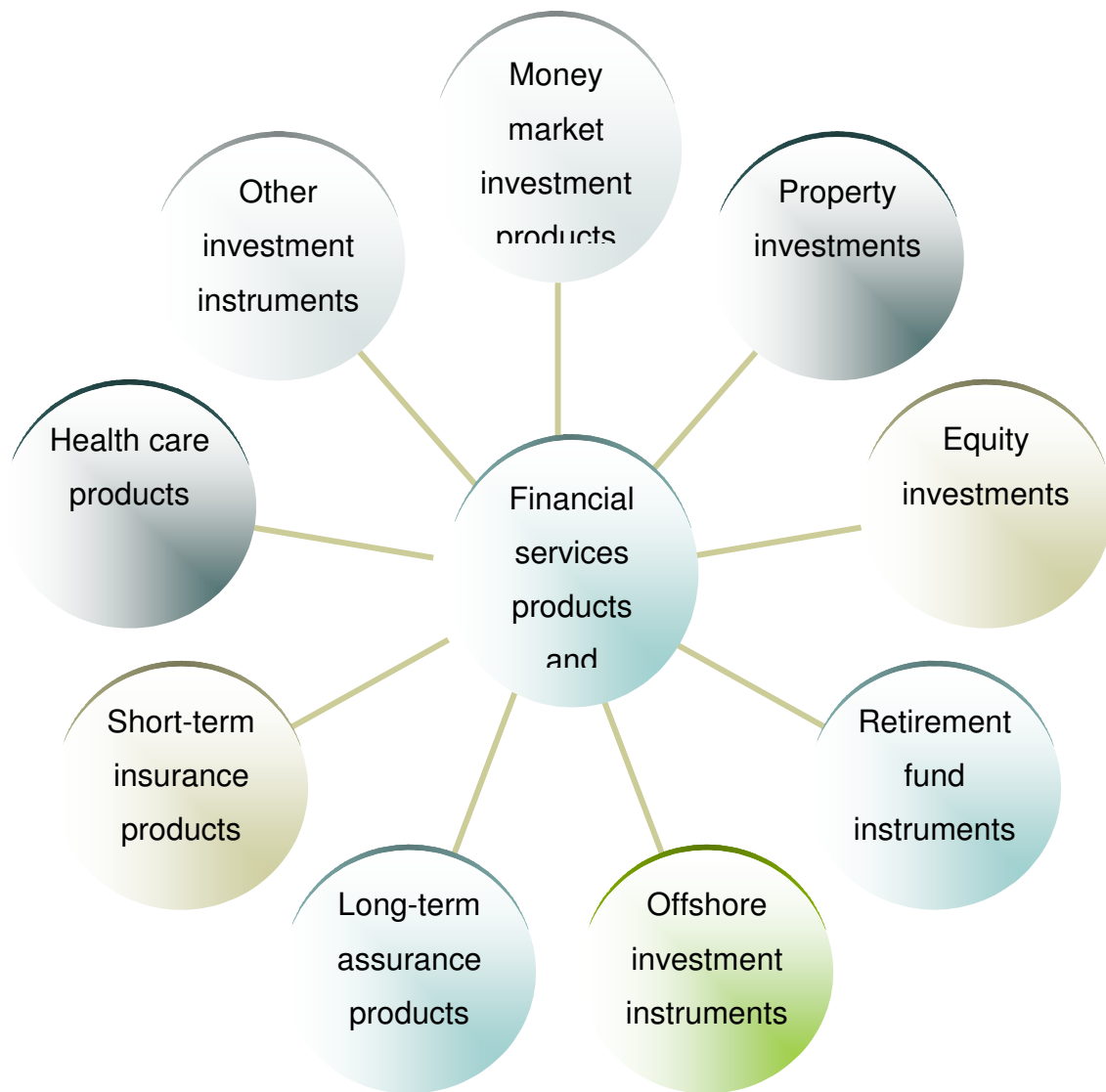
In this study the households financial product usage is analysed. Similar to previous studies households rather than individuals are studied, due to the fact that the household is the principal decision making unit and not the individual in isolation (Guiso, Haliassos, & Jappelli, 2002).

A secondary data analysis was performed on data obtained by the SAARF AMPS. (SAARF, 2010) The AMPS survey is a multi-stage area stratified systematic probability sampling done by means of in-home face to face personal interviews. It is a single source survey, because information on media usage, product consumption and demographics are collected from the same respondent. The AMPS sample is currently amongst approximately 25 000 South African adults (15 years and older) per annum in two national fieldwork waves. Results are published every six months in the form of 12-month rolling data which covers the two most recent fieldwork periods. The rolling period of July to December 2008 combined with January to June 2009 was used for the secondary data analysis.

Data on financial products used by households are based on the answers provided in the AMPS survey. The financial products identified in the survey were divided into the four levels identified under the financial product usage hierarchy. The responses were segmented into the eight life stages.

Classification of financial products

South Africa has a well develop and complex financial services industry. Previous studies concluded that financial products available to South African can broadly be divided into the following groups (Venter, 2009; Swart, 2002; Goodall & King, 2009; Botha, 2009):



Source: Venter, 2009.

Applying the financial product usage hierarchy that was developed, the financial products included in the study were categorised as follows:



(Some of the financial products, for example home loan, was used as proxy for wealth assets, therefore property owned)

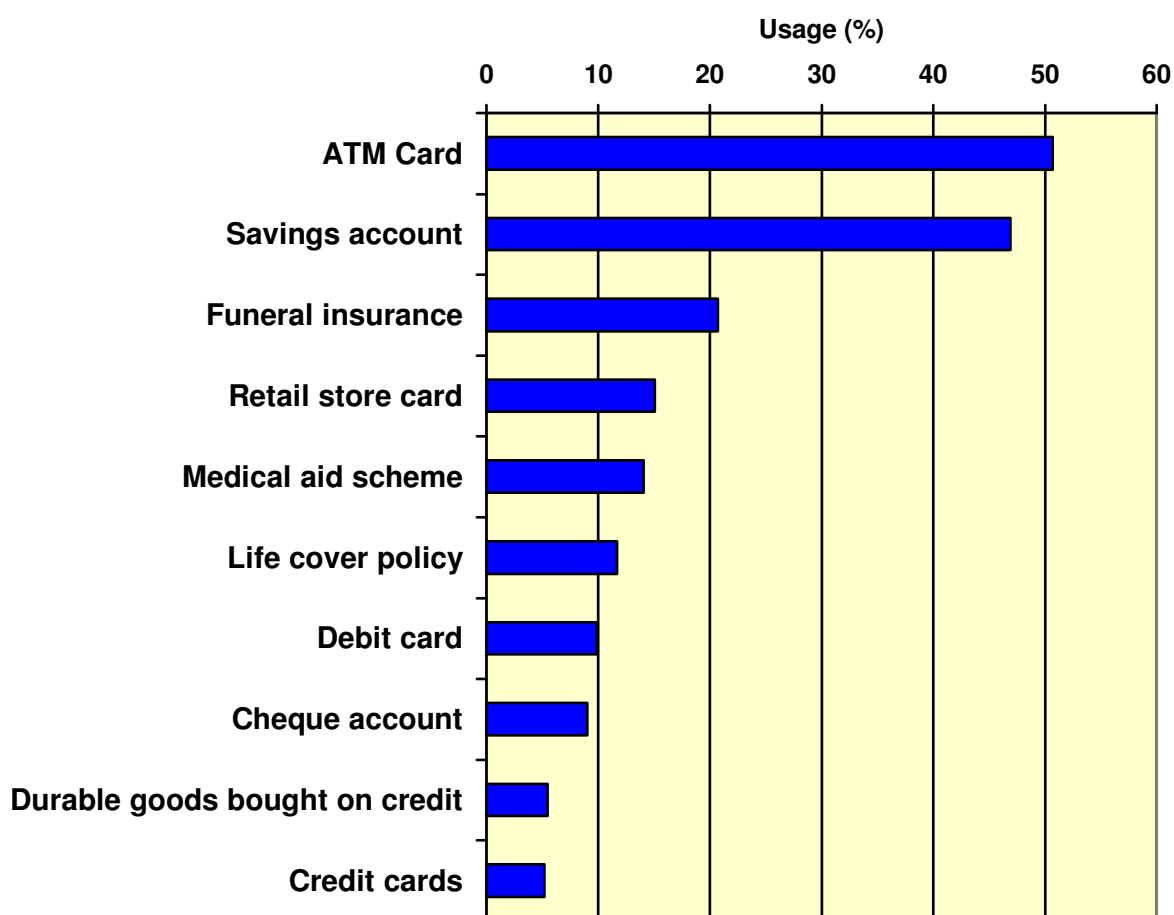
The original data reflects the number of South African households using a specific financial product. In order to facilitate the analysis and to better understand the data, the number of households per group was converted into percentages. Therefore, the number of households using each of the products was expressed as a percentage of the population per life stage group. Next, the data was analysed to determine which products within the four levels had the highest and lowest usage across the life stage. The data was also examined to determine whether certain trends could be identified if extracted per life stage group. Various valid and reliable tests were performed on the data to ensure validity and reliability of the data and no problems were encountered. The Cronbach's alpha reliability test (Pallant, 2007) was performed on the 25 financial products which indicated an alpha value of 0.868 .

It should be noted that this study of the financial products usage is limited to the financial products that were listed in the AMPS survey, although all the major financial products were included, it is not a complete list of financial products available in South Africa. The grouping of the financial products into the four levels was based on the defined savings motive hierarchy, due to the complex nature of some of the financial products some products could be include in more than one group, in these situations the products were grouped based on the main objective of the product.

6 DISCUSSION OF OVERALL FINDINGS

During the initial analysis of the data the financial products with the highest and lowest usage by South African households were identified. Figure 2 indicates the ten products most used by South African households.

FIGURE 2: TEN FINANCIAL PRODUCTS WITH HIGHEST USAGE



Source: SAARF, 2010

The survey found that 50.7% of households make use of an Automatic Teller Machine (“ATM”) cards for banking and 46.9% of South African households make use of savings accounts. These findings are similar to those of the FinScope (2010) survey which found that 64% of adults in South Africa make use of formal financial products (Finscope 2010). The only other financial product that had more than 20% usage was funeral insurance (20.7%). The financial product with the lowest usage rate was investment in the stock exchange.

In the following sections the financial products included in the survey will be analysed. The financial product usage hierarchy will be used to group similar products for discussion purposes in the applicable levels. The product usage will be analysed per life stage.

6.1 CASH MANAGEMENT PRODUCTS

The first level of financial products is the cash management products. These products are mainly used for transactional or short-term credit purposes. Table 3 contains the usage per life stage of the cash management products.

TABLE 3 CASH MANAGEMENT PRODUCTS USAGE PER LIFESTAGES

LIFE STAGE	ATM CARD	RETAIL STORE CARD	DEBIT CARD	CHEQUE ACC.	CREDIT CARD	PET-ROL CARD	MZANSI ACC.
AHS	36.20% ^L	8.37% ^L	5.99% ^L	3.59% ^L	1.32% ^L	0.38% ^L	4.39%
YIS	47.75%	12.31%	10.20%	6.90%	2.65%	0.90%	3.65%
MS	49.10%	11.49%	8.84%	7.54%	4.22%	1.18%	4.17%
YC	65.99% ^H	22.15%	13.89%	14.57%	10.89%	4.59%	2.52% ^L
YF	60.87%	23.30% ^H	13.48%	14.16%	8.72%	3.80%	3.12%
SPF	49.97%	16.91%	7.72%	5.14%	2.67%	0.57%	6.09% ^H
MF	64.29%	21.05%	15.10% ^H	16.80%	10.97%	5.55% ^H	2.53%
MC	58.41%	14.16%	13.13%	17.36% ^H	11.38% ^H	5.20%	3.20%
AVE*	50.67%	15.17%	9.88%	8.95%	5.20%	2.05%	4.06%

H – Highest usage

Source: SAARF, 2010 adapted

L - Lowest usage

AVE* -average usage

As expected the ATM card has the highest usage of this group of products – 50.67%. The ATM card represents the first step into formal banking services that can be linked to various transactional or savings accounts. Approximately 65% of “Young couples” and “Mature families” use ATM cards compared to only 36.2% of “At home singles”.

For all the products included in the cash management category, the “At home singles” have the lowest usage. “Young couples” have the highest take up of ATM cards. As “Young couples” are starting to acquire personal goods and starting their working career giving them access to the banking sector, the usage of these products would be their preferred choice.

“Young families” are the group with the highest usage rate of retail store cards. Retail store cards tend to be aimed at this group of users (families with at least one child under the age of 13 years) who for example regularly require new clothing and the majority of these cards provide for six months interest free payments. “Mature families” are the group with the highest usage of debit cards and petrol cards. Debit cards are a more convenient payment option for “Mature families”. In the last couple of years, more and more people are turning away from credit cards as people are avoiding the credit trap associated with credit cards as well as the risk of having cash at hand, this resulted in a huge rise for people using debit cards (economy watch.com, 2010).

“Mature families” (parents with children over the age of 13) are also the group with the highest usage of vehicle finance (refer below). Interestingly “Mature couples” are the highest users of cheque accounts and credit cards. A possible reason for this is the fact that they are the group who can meet the affordability requirements of the National Credit Act (South Africa, 2005). An additional explanation for the high cheque account usage is that while these users are at the peak of their earnings career cheque books were a popular method of payment as electronic banking and electronic fund transfers were not commonly used.

Four percent of South African households have/and or use an Mzansi savings account. A Mzansi Account is a low income transactional banking account that was developed in line with the commitments of South Africa's Financial Sector Charter, requiring banks to make banking more accessible to the nation and, specifically, to increase banking reach to all communities (Standardbank, 2010). The highest usage of the Mzansi account is in the “Single parent” life stage.

Overall the cash management products usage trend per the life stages appears to increase from the “At-home singles” to the “Young independent singles”, with a 1% decline at “Mature singles” (with respect to retail store cards and debit cards), exceeding “Young couples” and “Young families” and with a significant decline at the “Single parent family” life stage, there after increasing in the “Mature families” and “Mature couples” life stage.

The low overall usage of “At-home singles” can be explained by the demographic profile of the group. They are younger than 34 years of age, live at home with parents, not married and don’t have any dependants that they are responsible for. They generally do not have the need to make use of the cash management products since they still have the support of their parents. The data shows that as persons move out of their parent’s house there is an increase in the usage of cash management products.

Across all financial products the impact of a second income can clearly be seen when comparing the “Single parent families” to “Young family” groups. “Single parent families” are parents that are not married or not living together, with dependent children in the household they are responsible for. They most likely have maintenance costs relating to the children, in the case of divorced parents.

6.2 PRECAUTIONARY PRODUCTS

The second level of products is the precautionary products. These financial products are used to prepare for unexpected expenses, for example loss of assets. Table 4 contains the usage per product per life stage of the financial products classified as precautionary products.

TABLE 4 PRECAUTIONARY PRODUCT USAGE PER LIFE STAGES

LIFE STAGE	FUNERAL INSURANCE	MEDICAL AID	LIFE COVER	SHORT TERM INSURANCE	MEDICAL INSURANCE
AHS	7.85% ^L	11.10%	3.52% ^L	0.93% ^L	1.52% ^L
YIS	11.62%	8.80%	6.63%	1.83%	2.35%
MS	23.91%	10.21%	10.32%	3.92%	3.51%
YC	27.68%	21.36%	22.32%	8.83%	7.88%
YF	28.91%	20.81%	19.00%	6.78%	6.79%
SPF	21.70%	7.19% ^L	8.17%	1.83%	1.95%
MF	28.89%	26.26% ^H	24.51% ^H	11.24% ^H	10.38% ^H
MC	32.99% ^H	23.80%	19.48%	9.86%	8.84%
AVE*	20.68%	14.11%	11.64%	4.26%	4.24%

H – Highest usage; L - Lowest usage; AVE* - average usage

Source: SAARF, 2010 adapted

Within the precautionary products level, the product most households made use of was funeral insurance (20.68%) followed by medical aid (14.11%) and life cover (11.64%). Overall the trend in the precautionary product usage level appears to be the same for all products across the life stages. There is an increase across all the products from “At-home singles” to “Mature singles”, with the exception of having medical aid in the “Young independent singles” life stage where there is a slight decline. “Young couples” appear to have a higher product usage than “Young families”, with the exception of funeral insurance. From “Young families” to “Single parent families” there is a decline across all product usage after which it significantly increases to the highest usage in the “Mature families” life stage there after declining slightly for “Mature couples”. The high usage of precautionary products by “Mature families” is attributed to their vast responsibilities. This group is protecting their assets against loss, providing for ill-health and pre-mature death.

Although funeral insurance is the product used most in this level, it is interesting to note that the usage grows from less than 8% in “At-home singles” to almost a third in “Mature couples”. This is expected due to the fact that as a person comes closer to death, they start making provision for funeral expenses.

Medical aid is necessary as medical expenses increase as the family size increases. The slight decrease in medical aid from “At-home singles” to “Young independent singles” could be explained by the fact that the parents of “At-home singles” were paying for the medical aid of the child and once they became independent they could not yet afford medical aid. Interestingly though, the usage of funeral, medical and short term insurance, and life cover increased from “At-home singles” to “Young independent singles”. The fact that “Young couples” use these precautionary products more than “Young families” may be because “Young couples” have less responsibilities because they do not have children yet and therefore less expenses are incurred on medical expenses and education. They can then afford to have these precautionary products, where as a “Young family” might not be able to afford all of them. The decline in the usage for “Single parent families” can be again attributed to the fact that there is no dual income and they can not afford these products on a single income.

6.3 BASIC SAVINGS PRODUCTS

The third level of financial products on the financial product usage hierarchy is the basic savings accounts and personal loans. These financial products enable a person to save to meet the down-payment motive, i.e. save for a deposit or for a specific objective. Table 5 contains the usage per product per life stage of the financial products classified as basic savings products.

TABLE 5 BASIC SAVINGS PRODUCT USAGE PER LIFE STAGES

LIFE STAGE	SAVINGS ACCOUNT	PERSONAL LOAN
AHS	33.09% ^L	0.36% ^L
YIS	44.44%	0.36% ^L
MS	47.52%	0.60%
YC	64.12% ^H	1.67%
YF	55.08%	1.92% ^H
SPF	45.73%	1.02%
MF	60.07%	1.38%
MC	52.47%	0.96%
AVE*	46.87%	0.96%

H – Highest usage

L - Lowest usage

AVE*-average usage

Source: SAARF, 2010 adapted

A savings account is the second highest financial product that households have and/or use overall at 46.87%, with the highest usage regarding a savings account occurring in the “Young couples” and second highest in the “Mature families” life stages. There is a steady increase of savings accounts from “At-home singles” to “Young couples”, thereafter a decline at “Young families” and “Single parent families” and then an increase at “Mature families” concluding with an 8% decline to “Mature couples” at 52.47%.

Previous studies have found that South Africans tend not to save but rather use credit to obtain the products they need (De Clercq, 2010). It is interesting to note that although “Young couples” are the group with the most savings accounts they are also the second highest group with the most personal loans.

6.4 WEALTH MANAGEMENT PRODUCTS

The final level of financial products on the financial product usage hierarchy is the wealth management products. These financial products are long term investment products aimed at creating or maintaining wealth.

Table 6 contains the usage per product per life stage for this level. Some financial products are used as proxy for savings in other assets, for example home loans are seen as a proxy for investment in a house.

Within the wealth management products group, durable items bought on credit and retirement annuities/pension fund policies were the products that South African households used the most at 5.53% and 5.02% respectively.

TABLE 6 WEALTH MANAGEMENT PRODUCTS USAGE PER LIFE STAGES

LIFE STAGE	Durable items on credit	RAF/pension	Endowment	Invest. no life cover	Invest with life cover	Unit trusts /mutual funds	Home loans	Vehicle finance	Invest. paid up shares	Shares in stock exchange
AHS	4.30% ^L	0.66% ^L	1.12% ^L	0.49% ^L	0.66% ^L	0.73% ^L	0.03% ^L	0.27% ^L	0.19% ^L	0.08% ^L
YIS	4.41%	2.19%	1.60%	1.17%	0.48%	1.29%	0.52%	0.72%	0.50%	0.64%
MS	3.96%	4.87%	3.58%	2.84%	1.01%	2.56%	1.03%	0.92%	1.26%	0.95%
YC	7.42%	8.75%	6.71%	5.76%	1.73%	6.34%	3.44%	2.86%	1.40%	2.13%
YF	7.87%	8.38%	8.47%	6.46%	2.69%	4.21%	4.06%	3.10%	1.00%	1.51%
SPF	6.20%	3.59%	2.87%	2.18%	0.69%	1.55%	0.66%	0.71%	0.73%	0.31%
MF	9.24% ^H	11.85% ^H	10.04% ^H	8.31% ^H	3.35% ^H	6.54%	5.87% ^H	4.43% ^H	3.43%	1.98%
MC	3.05%	10.33%	7.34%	5.89%	2.11%	6.55% ^H	2.22%	1.74%	3.72% ^H	2.43% ^H
AVE*	5.53%	5.02%	4.34%	3.33%	1.36%	2.85%	1.68%	1.44%	1.10%	0.94%

H – Highest usage

Source: SAARF, 2010 adapted

L - Lowest usage

AVE*-average usage

Overall, with the exception of investment in Unit Trusts, Mutual Funds, shares/paid up shares and the stock exchange, "Mature Families" households are using the wealth management products the most. "Mature couples" invest in Unit Trusts/Mutual Funds; share/paid up shares and the stock exchange the most. "Young couples" are the third highest life stage group to invest in Unit Trusts and Mutual Funds and second highest life stage group to invest in the stock exchange.

"Mature families" have lots of demands on their disposable income, as well as an increased need for financial security, which explains the highest usage by them for durable items bought on credit, having retirement annuities, endowments and investments with and without life cover and investing in Unit Trusts/Mutual Funds.

"Young couples" are investing more in Unit Trusts/Mutual Funds and the stock exchange. This might be due to the fact that they do not have dependants, have dual income and are saving for a deposit for a house or are starting to save for a specific dream.

Overall the trend of the wealth management product usage across the eight life stages is similar to the previous products, with "At-home singles" starting out with the lowest usage increasing through to "Young couples", declining at "Young families" and significantly declining at "Single parent families" increasing to the highest usage in "Mature families" and then declining for "Mature couples".

There is however a decline in durable items bought on credit from "Young independent singles" to "Mature singles" and "Mature families" to "Mature couples" which could be explained by the fact that "Mature singles" and "Mature couples" are more established than "Young independent singles" and "Mature families" and therefore do not have the need to buy durable items.

7 PRODUCT USAGE RATING INDEX

The study analysed the financial product usage for each of the four levels of financial product usage hierarchy which is based on Lindqvist savings motive hierarchy. The financial products usage was further analysed per life stage for each of the four levels to determine if their usage is influenced by the life stage. In level one: cash management products - ATM cards (50.67%) and retail store cards (15.17%) were the most used products. Overall the trend of the product usage was the same across all the products, “At-home singles” having the lowest usage and the highest usage occurring at “Young couples”, “Young families” and “Mature families”.

In level two: precautionary products - funeral insurance (20.68%) and medical aid (14.11%) were the most used products. The least used products were medical insurance at 4.24%, and short term insurance at 4.26%. Overall the trend for the product usage was the same across all the products, with the highest usage in mostly “Young couples” and “Mature families” and “At-home singles” the lowest usage.

Only two financial products were include in the basic savings products level namely savings accounts with 46.9% of households having these accounts and personal loans with usage of less than 1%. The high usage rate of the savings accounts might indicate that a large portion of the population actually use these accounts as cash management products rather than basic savings products, probably due to the lower cost of maintaining these accounts. The young couples group had the highest usage rate with the at home singles the lowest usage rate.

In group four: wealth management products, durable items bought on credit (5.53%) retirement annuity/pension funds (5.02%) and endowments (4.34%) were the most used products. From “At-home singles” to “Young families”, there is a steady increase in usage, with the exception of durable items bought on credit for “Mature singles” and retirement annuity, Unit Trusts/Mutual Funds, investment in shares and shares in stock exchange for “Young families”. A significant decrease in product usage for “Single parent families” occurred, then increasing to the highest usage in almost all the products by “Mature families”. After which there is a decline in product

usage to “Mature couples” but not with respect to Unit Trust/Mutual Funds, investment in shares and shares on the stock exchange, where they have the highest usage.

In order to determine if the overall trends were the same for each level of the financial product usage hierarchy a product usage rating index was developed. The index rates the usage of the products included in each of the levels of the hierarchy. The index was compiled as follows; firstly the usage of each product in the level was ranked with the highest usage receiving an eight and the lowest usage receiving a one. The weight of each of the components (financial products) in the index was determined by the overall usage of the product. The index score for each life stage was consequently determined and the score was used to determine the ranking for each of the hierarchical levels. Table 7 contains the results of the product usage rating index.

TABLE 7 PRODUCT USAGE RATING INDEX

LIFE STAGE	Level 1	Level 2	Level 3	Level 4
At-Home Singles (AHS)	1	1	1	1
Young independent Singles (YIS)	2	2	2	2
Single Parent Family (SPF)	4	3	3	3
Mature Singles (MS)	3	4	4	4
Young Couples (YC)	8	6	8	6
Young Family (YF)	6	5	6	7
Mature Families (MF)	7	8	7	8
Mature Couples (MC)	5	7	5	5

(Rating scale: 1 = lowest usage rate; 8 = highest usage rate)

Source: own

The rating index clearly confirms that there is a similar trend across the different levels of the hierarchy. For all level “At-home singles” had the lowest usage followed by “Young independent singles”. This is expected due to the fact that “At-home singles” mainly depend on their parents for financial support and therefore have the lowest need for financial products. As the singles leave their parents house to live independently the need for financial products increase, for example an account in which to deposit a salary and pay housing expenses.

The next two life stage groups based on the usages index is the “Single parent families” and the “Mature singles”. The explanation for the “Single parent families” generally receiving a three can be found in the single income of these families, the family does not have the means to make use of several financial products for example medical aid schemes. The “Mature singles” do not have the same family responsibility as family groups which could explain their relatively low usage of certain products for example pension funds.

The next life stage is the “Young couples” and it is interesting to note that this group has the highest usage rating for two of the four levels. An analysis of the demographic description of this group however provides the explanation for this finding; the respondents have a dual income with no dependants. They are normally at the starting phase of the asset accumulation process which explains their highest rating in the basic savings and cash management groups. As they have relatively few assets and are far from retirement, protection against risks and preparing for retirement is not a high priority.

The next life stage is the “Mature families” as these families have young children in the home, they will generally require a wider range of financial products, due to high debt levels during this life stage, the general ranking of between five and seven is expected.

The “Mature families” represent the next phase in the life stage model. During this phase protection of assets and managing wealth for retirement is top priority. This is confirmed by this group receiving the top ranking for those two levels in the hierarchy (level 2 and level 4).

The final life stage is the “Mature couples” where the children or “At-home singles” have left the home. The need for financial products generally reduces in this group especially after retirement when debts are normally paid off and financial transactions reduce.

8 CONCLUSION

The finding of the rating index clearly indicates that life stage has a major impact on the usage of different financial products. The rating index found that the “single” groups made use of less financial products than the “family” groups. A possible explanation of this could be that the financial products do not meet the needs of these single groups. Developing products to suit these groups could encourage them to save more. The group that needs the biggest support when considering financial product usage as a proxy for financial needs is the single parent family.

In this exploratory study the influence of life stages on savings products used were investigated. Literature has also identified other factors that could influence savings product usage, further research should be done to determine which factors influence the use of financial products, for example age and income earned. The different factors should be analysed statistically to determine which of them have the highest significance in predicting the usage of financial products.

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TITLE:

**THE ROLE OF THE INTERNAL AUDIT FUNCTION IN ASSESSING
ORGANISATIONAL GOVERNANCE**

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Abstract

This study explores the role of the internal audit function (IAF) in assessing organisational governance. The IAF, as a key role-player provides a value-adding service in assessing and making recommendations for improving and enhancing the governance process, and ultimately the governance maturity of an organisation. The governance process as indicated in this study, entails defining governance, deciding on a governance approach and framework to be followed and implemented - with reference to the organisation's governance maturity. The study found that the level of an organisation's governance maturity, as well as the scope of its governance processes, have a significant impact on the role of the IAF.

Keywords

governance approach; governance assessment; governance framework; governance maturity; governance process; internal audit function; organisational governance

THE ROLE OF THE INTERNAL AUDIT FUNCTION IN ASSESSING ORGANISATIONAL GOVERNANCE

1 INTRODUCTION

In recent years the demand on organisational leaders to govern in a way that is responsible towards the shareholders, environment, society, and a variety of stakeholders has increased significantly (Institute of Directors (IoD), 2009; Maak & Pless, 2006). Reasons for the increased need to improve governance include amongst others, the global corporate scandals and collapses, financial crisis as well as several cases of poor management, unethical behaviour and, most importantly, inadequate and ineffective monitoring of the aforementioned functions (International Federation of Accountants (IFAC), 2004:13-14; IoD, 2002; IoD, 2009; Solomon, 2007:31-47). Responsible leaders are challenged to govern their organisations more effectively focusing on the institutionalisation of values and principles by choosing a governance approach, and a best-practice framework to achieve governance maturity and ultimately sustainable business success.

The implementation of an effective governance process within an organisation is the responsibility of senior management and the board of directors, who should buy into the fact that organisational governance can and should be effectively managed. Critical in the governance process is utilising other role-players within the organisation. One of the key role-players in the governance processes of an organisation is the internal audit function (IAF). This function, in an assurance and advisory role, should evaluate and assess the effectiveness of the governance processes within the organisation (IoD, 2009:96-102; IIA, 2009b:8).

Given the fact that the governance of organisations has received unprecedented attention in recent years, this has been the favourite topic of most researchers in this particular field of study (Rossouw & Van Vuuren, 2007:189). Research conducted globally, specifically in the field of internal auditing, also emphasises the important

role the IAF should play in assisting management with governance issues (Barac & Van Staden, 2009: 947; Bookal, 2002:46; Gramling & Hermanson, 2006:37-39; Hermanson & Rittenberg, 2003:58; Marks, 2007:31-32). It is furthermore mentioned that researchers will benefit from *continued refinement of theories and availability of evidence* in the aforementioned area (Gramling, Maletta, Schneider & Church, 2004:240). In South Africa, the King III Report on Corporate Governance (hereafter referred to as King III) elaborates further and highlights the importance of the governance role of the IAF (IoD, 2009:96-102).

As indicated above, extensive research has been conducted in the area of corporate governance but, to a more limited extent, the role the IAF plays in assessing the adequacy and effectiveness of governance processes. The question therefore arises as to what the role of the IAF is in assessing organisational governance.

2 RESEARCH OBJECTIVES, SCOPE, METHODOLOGY AND LIMITATIONS

The study aims to determine the role of the IAF is in assessing organisational governance. In order to achieve this objective, a literature review on organisational governance and the role of the internal auditor was conducted. Firstly the concept of organisational governance is discussed. Secondly, the governance process, with reference to governance maturity, governance approaches, and governance frameworks, is discussed. Thirdly, the role of the internal auditor in assessing organisational governance is studied and finally the impact of the organisation's governance maturity on the role of the IAF is discussed.

This study has specific limitations, as the findings are based on a non-empirical study. The absence of an empirical study to identify the role of the IAF in assessing organisational governance, is a limitation. In addition, the development of a best practice model for IAFs to provide assurance as well as consulting services with regard to organisational governance, is another limitation of this study which future research could explore.

3 BENEFITS OF THE STUDY

In the light of the limited research that exists on governance and the role of the internal auditor, the study builds on the current body of knowledge and therefore its findings are important from a theoretical perspective. The study could benefit the Institute of Internal Auditors (IIA), the global professional body representing internal auditors, by providing information on the role of the IAF in assessing organisational governance; information that the IIA could use in developing its standards and providing guidance to its members. In addition, this study is relevant to practice in the following areas:

- it could be useful to organisations when comparing the services (relating to governance processes) of their own IAFs to the findings reported in this paper. These findings could prompt management of organisations to explore initiatives to improve the level of assurance provided by their IAFs.
- In addition, organisations which are not mature in terms of their governance processes can use the findings of this study to enhance or improve these processes. The role of the IAF can be expanded to include consulting services relating to governance, thus adding value to the organisation's processes.

4 literature review

The study aims to determine the role of the IAF in assessing organisational governance. To fully understand the role of the IAF in assessing organisational governance, it is important to discuss the concept of organisational governance as well as to study the governance process. The latter entails amongst others, defining and interpreting organisational governance, determining governance approaches, and implementing governance frameworks. In addition, the role of the internal auditor in providing assurance and/or consulting services relating to organisational governance, is discussed. Finally, the impact of an organisation's governance maturity on the role of the IAF, is addressed.

4.1 The concept of organisational governance

4.1.1 Defining corporate governance

The concept of corporate governance (being corporate governance, organisational governance or governance), has to be explored and defined. An extensive search of the most recent literature revealed that there is no easy way to define the concept of corporate governance, hence the vast amount of definitions available.

Definite trends in definitions can, however, be identified. This ranges from narrow definitions to broader definitions. To have a narrow perspective on corporate governance (also referred to as the exclusive approach) implies that the focus is only on organisations' relationship with and responsibility toward their shareholders (Friedman, 1993:162; Solomon, 2007:1; West, 2006:433). This perspective is supported by various studies and researchers acknowledge that the only two relevant parties to which corporate governance relates are management and the shareholders. Furthermore, the relationship between these two parties are purely financial in nature, in other words, the main objective of the organisation is to maximise profits (Friedman, 1993:162; Parkinson in Solomon, 2007:13; Shleifer & Vishny in Vives, 2000:1; West, 2006:433).

The broader perspective on corporate governance (also referred to as the inclusive approach) also has an array of definitions. This broader definition implies that a relationship does not merely exist between management of an organisation and their shareholders but also between management of an organisation and other stakeholders such as employees, customers and suppliers, whose best interests should be considered and to whom the organisation should be held accountable (Donaldson & Preston, 1995:65-91; Freeman & Evan, 1993:76; Solomon, 2007:23-26; West, 2006:433).

In addition to the aforementioned, a well-known fact amongst researchers in the field of corporate governance, which should not be omitted, is that the primary/basic role of corporate governance has been introduced by Sir Adrian Cadbury in the Cadbury Report on Corporate Governance in the United Kingdom (UK). This report defines corporate governance as "... the system by which companies are directed and controlled ..." (Cadbury Report (1992); Rossouw & Van Vuuren, 2007:189; Solomon, 2007:13; Turnbull, 1997:181). The actions of direction and control are quite often referred to as the notions of conformance and performance. Where conformance refers to the compliance dimension of corporate governance and the responsibilities of various oversight mechanisms within organisations, the performance dimension focuses on strategy and value creation (IFAC, 2004:4). Performance needs to be balanced with conformance to ensure effective organisational governance.

In addition to defining corporate governance, it is necessary to elaborate on the term that will be used for purposes of this study. Some of the leading publications from the IIA acknowledge the fact that the terms corporate governance, organisational governance and governance are used interchangeably describing the same concept. It is however argued that the term organisational governance is the most encompassing term, as it implies that the focus is on the governance of any type of organisation and not only corporate/private or publicly listed companies. For purposes of this study the term organisational governance will be used (Hermanson & Rittenberg, 2003:26-28; IIA, 2006:3-4).

To be able to fully understand what organisational governance entails, it is critical to take cognisance of the various theories underlying organisational governance. In addition, these theories are also the point of departure for developing relevant organisational governance frameworks, which will be discussed later in this article. The theories are (Solomon, 2007:16-30):

- Agency theory.
- Transaction cost theory.
- Stakeholder theory.

- Organisation theory.
- Stewardship theory.

For purposes of this study only the stakeholder theory is briefly discussed, since the inclusive approach to organisational governance, which supports the stakeholder theory, was used above for definition purposes.

The stakeholder theory stems from the fact that organisations in today's era are so large, complex and has such a significant impact on society, which necessitates these organisations to be held accountable to many more interest groups than solely their shareholders. King III furthermore recognises the importance of stakeholders by devoting a whole chapter on how this relationship can be effectively managed since a stakeholder is seen as someone that has a 'stake' in one's business and hence can affect one's organisation in some significant manner. (Donaldson & Preston, 1995:65-91; Freeman & Evan, 1993:76; IoD, 2009:110-127; Solomon, 2007:23-26; West, 2006:433).

It is thus clear that the concept of organisational governance is broad and has several definitions and interpretations. It is argued that this will also differ from organisation to organisation. Critical in the governance process however, is for each organisation to firstly define and interpret its own organisational governance. The extent to which this will be done, will depend on the organisation's governance maturity.

4.1.2 The concept of organisational governance maturity

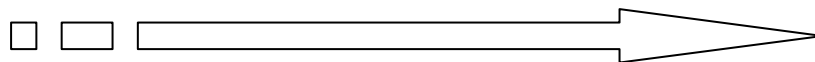
The concept of organisational governance maturity refers to the extent to which the organisation has established adequate governance processes as well as the board's, management's and employees' adherence to these governance processes (Gramling & Hermanson, 2006:38; IIA, 2006:4-5; Marks, 2007:31).

The aforementioned implies that organisations which are not seen as mature in respect of their organisational governance processes most probably either has not established any form of organisational governance process or are only in the beginning stages of establishing such a process. On the other hand, organisations which are seen as mature have well-established governance processes in place which is also well-known to all relevant parties such as management and the employees of the organisation (Gramling & Hermanson, 2006:38; IIA, 2006:4-5; Marks, 2007:31).

In the authors' view, it is argued that organisations operate in a specific mode of governance maturity or according to a specific governance strategy. The modes of governance maturity model (as presented by the authors in Table 1) is based on a modes of morality model developed by Van Vuuren (Rossouw & Van Vuuren 2007:46). These modes or strategies range from being immature to being mature with regard to organisational governance as summarised in Table 1. An organisation which operates in the immature mode is not at all interested in implementing governance structures and systems. An organisation in the re-active mode has limited governance structures and systems in place in reaction to a possible occurrence of mismanagement or poor governance. An organisation in the compliance mode, follows a rules-based approach to organisational governance, implementing those structures and systems required by some form of legislation. This is usually done to prevent mismanagement and poor governance of the organisation. An organisation in the integrity mode encourages adherence to governance principles (principles-based approach) and consistently promotes good governance practices. Finally, a mature organisation is totally committed to organisational governance and governance practices are effectively institutionalised at all levels within the organisation.

Table 1: Modes of Governance Maturity Model

	Immature	Re-active	Compliance	Integrity	Mature
Characteristics	Governance ignored	Minimum governance practices in place	Rules-based approach Prevent mismanagement	Principles-based approach Encourage good governance	Effective combination of rules and principles Commitment to effective governance



Source: (Adapted from the Modes of Morality Model as presented by Rossouw & Van Vuuren, 2007:45)

In the authors' view, an organisation's mode of governance maturity will determine the extent to which governance processes are implemented by management. After defining and interpreting governance and determining a governance maturity mode or strategy, an organisation should determine its approach to governance which is linked to its governance maturity mode or strategy, as discussed above.

4.1.3 Approaches to organisational governance

From management's perspective there are two main approaches to organisational governance. The debate of which approach to organisational governance is the best, rules-based or principles-based, has gone on for many years and most probably will continue for many years to come (Jackson, 2004:58). It is first necessary to understand the main difference between the two approaches. Under a rules-based regime, organisations should comply with a specific set of rules, basically a checklist of what to do and what not to do. In contrast with the aforementioned is the principles-based approach, which focuses mainly on the end-result and doing the

‘right thing’ or what is best for the organisation. There are numerous arguments for and against both approaches, as acknowledged by many experts (Barrier, 2003:71-73; Jackson, 2004:58; Simpson, 2005:xvi). Table 2 depicts the various arguments for and against both approaches, as identified by different authors after interviewing various leaders within the organisational governance field (Barrier, 2003:68-73; Jackson, 2004:57-61).

Table 2: Arguments for and against rules-based and principles-based organisational governance

Rules-based organisational governance		Principles-based organisational governance	
Arguments for	Arguments against	Arguments for	Arguments against
Organisations' results and information is more comparable and standardised, giving confidence to stakeholders	Rules are easier to circumvent	Seen as qualitative governance which implies that more value is added to the business	A lack of standardisation may result in information being presented in various formats not understandable to all stakeholders
Rules-based regimes works best in areas which are regulated, complex and public interest is high	In order to ensure compliance, audit departments can be forced to do something regardless of whether it is 'true or fair'	Organisations may present data and information as they see fit	This approach may be confusing at first, leaving 'compliance' open to interpretation
	Too many rules may become confusing	Principles-based regimes works best in areas which are seen as flexible, less complex and	

Rules-based organisational governance		Principles-based organisational governance	
Arguments for	Arguments against	Arguments for	Arguments against
		where public interest is low	
	Entrepreneurship could be deterred	Could, if properly managed, result in good returns for organisations	
	Organisation can become overly risk-averse and governance-averse	Promotes openness and transparency in decision-making processes	
	Organisations follow rules without understanding why these rules exist and the underlying principles	Organisations understand the environment they operate in better and has a clear picture of what is 'right' and 'wrong'	

Source: Barrier (2003:68-73); Jackson (2004:57-61).

An analysis of the abovementioned information in Table 2 clearly indicates the business community's tendency to lean more toward a principles-based approach to organisational governance. However, the United States of America (USA), which is seen as the largest player in the world economy, still follows the rules-based approach (Jackson, 2004:60).

It is however noted that one common factor determining which approach should be used for an organisation mainly stems from the country in which it operates. For example, USA organisations generally follow a rules-based approach whilst organisations within the UK tend to be advocates of the principles-based approach

(Jackson, 2004:57-61). The approach followed in South Africa is also mostly principles-based given the fact that King III, which is the leading governance framework applied by a large number of organisations, is based on the governance principles of responsibility, accountability, fairness and transparency (Barrier, 2003:68-73; IoD, 2009:7-8).

This study furthermore highlights two of the most widely recognised principles-based approaches namely the Organisation for Economic Co-operation and Development (hereafter referred to as OECD) principles of corporate governance and King III. The OECD commissioned a group of leaders in the global business community and specifically the organisational governance field to identify whether a need existed within the OECD countries (30 countries) to improve organisational governance systems. After extensive consultations with various relevant interest groups within the organisational governance field it was concluded and argued that irrespective of different structures, traditions, cultures and legal frameworks a need for improved organisational governance definitely existed and that an effective organisational governance system had to incorporate the four principles of fairness, transparency, responsibility and accountability. As mentioned earlier, King III also recognises that these principles form the basis for good organisational governance (IoD, 2009:56; Organisation for Economic Co-operation and Development (OECD), 2004:1-66; Simpson, 2005:xvi).

Stemming from the above, the OECD recognised an opportunity to develop a set of global principles in terms of organisational governance. The principles are: “ensuring the basis for an effective corporate governance framework, the rights of shareholders and key ownership functions; the equitable treatment of shareholders; the role of stakeholders in corporate governance; disclosure and transparency; and the responsibilities of the board” (Luo, 2007:244-252; Monks & Minow, 2001:252-253; OECD, 2004:1-66; Simpson, 2005:xi-xx; Solomon, 2007:335-337). The only weakness of this set of global principles is that it is not enforceable. What is clear from the aforementioned is the emphasis on principles as is the case with King III.

Once the organisation has decided which approach to organisational governance to implement/support, the next step (as illustrated in Table 5) would be to decide on an organisational governance framework that would compliment the chosen approach the best. These frameworks will subsequently be discussed.

4.1.4 Organisational governance frameworks

A review of the most recent literature indicates that the words system, structure and framework are used interchangeably describing the same concept. It was however found that the word framework is used most frequently and that the meaning of this word has a broader/more encompassing approach as it includes all various organisational systems and structures (IoD, 2009:7; Keasy, Thompson & Wright, 2005:22; Simpson, 2005:xiv; Solomon, 2007:1-30). When using the term framework in this article it will hence refer to the systems and structures management has implemented to manage organisational governance within the organisation. These include, amongst others, a governance committee or department, a governance officer, risk management and internal control systems, legal counsel, fraud lines, an internal audit function, and external auditors.

It is acknowledged that various organisational governance frameworks exist throughout the world and that a 'one size fits all' global framework would be extremely difficult to establish. This is mainly due to the fact that organisations and the markets they operate in will always be influenced by local cultures, pressures and practices as well as the political and legal systems of the specific country (IoD, 2009:6-9; Jackson, 2004:57-61; Monks & Minow, 2001:252). It is however possible to recommend a set of guiding principles, such as the OECD principles on corporate governance or King III to which all organisations should aspire to, as mentioned earlier.

A study of literature on organisational governance frameworks furthermore revealed that organisational governance is currently categorised in various ways. The most

commonly used classification methods are either for an organisation to adopt a framework which is mostly used on their specific continent or for an organisation to choose the Anglo-American (mostly rules-based approach) framework or the European (mostly principles-based approach) framework (Green & Gregory, 2005:50-54; West, 2006:434).

The European Corporate Governance Institute (ECGI) provides a complete list of frameworks and codes adopted globally. For purposes of this article, an extract of the leading frameworks (as identified by Monks and Minow in 2001) as well as the frameworks that, in the authors' view, relate to the practice of internal auditing, is provided (ECGI, 2010; Monks & Minow, 2001:252):

Table 3: Leading frameworks relating to the practice of internal auditing

Continent	Framework
Africa:	
SA	King Report I (1994); King Report II (2002); King Report III (2009)
America (North and South):	
Canada	Dey Report (1999); Corporate Governance:Guide to good disclosure (2006)
Asia:	
Japan	Corporate Governance Principles:A Japanese view (1997); Principles of Corporate Governance for listed companies (2004)
Australia	Bosch Report (1995); Corporate Governance Principles and Recommendations (2007 and 2010)
Europe:	
Belgium	Belgian Code on Corporate Governnace (2009)

Continent	Framework
France	Vienot Report I (1995); Vienot Report II (1999); Recommendations on Corporate Governance (2010)
Germany	Cromme Code (2002); German Corporate Governance Code (2009)
Spain	Unified good Governance Code (2006)
Sweden	The Swedish Code of Corporate Governance (2009)
The Netherlands	Peters Report and Recommendations (1997); The Tabaksblat (2008)
UK	Cadbury Report (1992); Turnbull Report (1999); The Combined Code on Corporate Governance (2003); The UK Corporate Governance Code (2010)

Source: ECGI (2010); Monks and Minow (2001:252).

With reference to the previous step in the governance process, namely to determine a governance approach, it is relevant to compare, on a high-level, some leading rules-based frameworks with their principles-based counterparts. In light of the aforementioned the King III as well as the Combined Code on Corporate Governance of 2003 from the UK, which are both principles-based, was used for comparison purposes. In addition, an organisational governance framework of the USA, namely the Sarbanes-Oxley Act of 2002 was used to identify the main differences in systems and structures highlighted between these two regimes.

King III was used as the basis or point of departure to identify the systems and structures relevant for consideration, given the fact that this framework is seen as one of the leading frameworks in the organisational governance field, as indicated by Marks (2010), a well-known organisational governance expert in the USA. The tick marks indicate whether the Combined Code of 2003 from the UK and the Sarbanes-Oxley Act of 2002 from the USA include the relevant systems and structures identified by the King Committee. The cells within table 4 identified by an asterisk (*)

indicate systems and structures which are not sufficiently covered and hence create an opportunity for further research.

Table 4: Areas identified for the critical analysis of relevant governance frameworks

Relevant areas	King III	Combined Code (UK)	Sarbanes-Oxley Act (USA)
Boards and directors	✓	✓	*
Corporate citizenship: leadership, integrity and responsibility	✓	*	*
Audit committees	✓	✓	✓
Risk management	✓	*	*
Internal audit	✓	*	*
Integrated sustainability reporting and disclosure	✓	*	*
Compliance with laws, regulations, rules and standards	✓	✓	✓
Managing stakeholder relationships	✓	*	*
Fundamental and affected transactions	✓	✓	✓

Source: IoD (2009:2-11); Lipman and Lipman (2006:237-250); Sarbanes-Oxley Act of 2002; Solomon (2007:313-333).

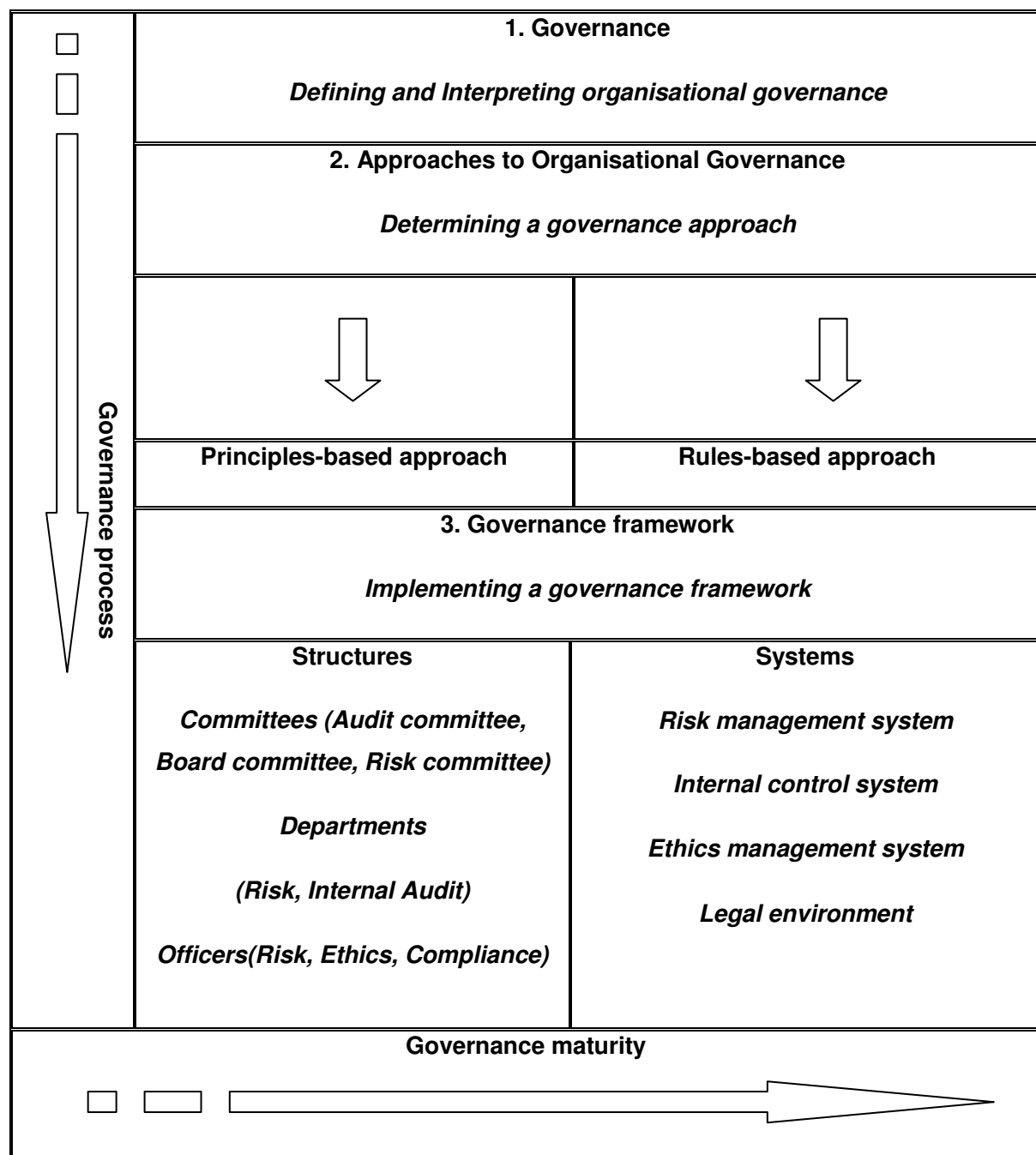
It is clear from the abovementioned table that the King III framework is the leader in terms of some crucial areas in respect of the governance of organisations, as already indicated by Marks (2010).

4.1.5 Summary

A summary of the organisational governance process as discussed in the literature is presented in Table 5. For purposes of this study, an organisational governance

process entails defining and interpreting governance within a specific organisation, determining the governance approach to be followed, and determining a governance framework to be used as basis for the structures and systems to be implemented. The extent of the governance process implemented will depend on the governance maturity of the organisation.

Table 5: Summary of the organisational governance process



Source: Authors' own

4.2 The role of the IAF in providing assurance and consulting services relating to organisational governance

4.2.1 The role of the IAF

According to the IIA, internal auditing is defined as follows:

“Internal auditing is an independent, objective assurance and consulting activity designed to add value and improve an organization's operations. It helps an organization accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control and governance processes” (IIA, 2009a).

During 1999 this new definition of internal auditing was developed to make provision for the changing/evolving role of internal auditors supported by the fact that the needs of management, audit committees and various other stakeholders have also changed in terms of what they expect from internal auditors. When comparing the previous definition (before 1999) with the new definition (after 1999) it is noted that the concept of corporate governance has been included in the new definition to make provision for these changing needs (Coetzee, 2004:37-38; Coetzee, Du Bruyn & Plant, 2007:10).

In addition to the definition, the *International Standards for the Professional Practice of Internal Auditing* (hereafter referred to as the *Standards*) issued by the IIA, also emphasise the fact that the IAF “... must assess and make appropriate recommendations for improving the governance process ...” of the organisation (IIA, 2009b:8). The practice advisories, which are an extension of the *Standards*, provide more detailed advice on the role of the IAF. These practice advisories highlight the fact that the IAF should perform governance assessments (IIA, 2010).

As noted above, the IAF mainly has two capacities in which internal audit services relating to the governance processes can be rendered to management, namely either rendering an assurance service or alternatively rendering a consulting service. From an internal audit perspective, an assurance service is “An objective examination of evidence for the purpose of providing an independent assessment on governance, risk management, and control processes for the organization. Examples may include financial, performance, compliance, system security, and due diligence engagements”. Consulting services include “Advisory and related client service activities, the nature and scope of which are agreed with the client, are intended to add value and improve an organization’s governance, risk management, and control processes without the internal auditor assuming management responsibility. Examples include counsel, advice, facilitation, and training” (IIA, 2009b:16-17).

The first capacity entails that internal auditors provide assurance on the governance processes implemented at that specific organisation. This implies that the organisation is relatively ‘mature’ in terms of their governance processes, structures and systems and that management’s main concerns are to ensure that the governance processes, structures and systems are adequate and effective (Gramling & Hermanson, 2006:38; IIA, 2006:4; Marks, 2007:31). According to Gramling and Hermanson (2006:38), should the aforementioned scenario be applicable, internal auditing may be involved in “... evaluating whether companywide governance components work together as expected; analysing the level of reporting transparency among parts of the governance structure; comparing governance best practices; and identifying compliance with and applicable governance codes”.

The second capacity entails that internal auditors act as ‘catalysts for change’ in order to improve the organisation’s governance processes. This approach is more appropriate when an organisation’s governance processes are developed to a lesser extent. Typical services that can be rendered by the IAF in this scenario are to assist with the board structuring, to assess the adequacy of information forwarded to the board and to assess board committee effectiveness (Gramling & Hermanson, 2006:38; IIA, 2006:4-5; IIA, 2010; Marks, 2007:31).

It is thus clear that the IAF has a critical role to play in both an assurance and consulting capacity, when performing governance assessments. These assessments might not be performed as a single internal audit engagement, but could quite often be based on information obtained from numerous audit engagements over time (IIA, 2010). Information to consider when performing governance assessments includes, amongst others: the results of audits of specific governance processes (for example the whistleblower process, ethics management process); governance issues arising from audits that are not specifically focused on governance (for example financial reporting, fraud risks); the results of other internal and external assurance providers' work (for example legal counsel, external audit) and other information on governance issues (for example adverse incidents indicating an opportunity to improve governance processes) (IIA, 2010).

In addition to the above considerations, the practice advisories (PA 2110) also highlight the fact that the chief audit executive (head of the IAF), should consider the relationships between governance, risk management and internal control when planning assessments of governance processes (IIA, 2010). The IAF should thus have a clear understanding of the organisation's governance approach, framework and processes to assess the adequacy and effectiveness thereof.

As indicated by Marks (2007:31), the 'governance maturity' of the organisation is the decisive factor when choosing the type of service, assurance or consulting, to be rendered in conducting governance audit engagements (Gramling & Hermanson, 2006:38; IIA, 2006:4). As noted earlier, governance maturity impacts the role of the IAF when assessing governance processes.

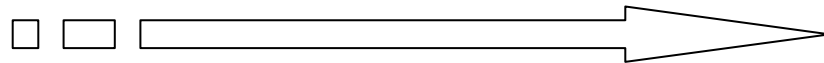
4.2.2 The impact of the organisation's governance maturity on the role of the IAF

It is clear that the organisation's governance maturity will have a significant impact on the role of the IAF. An organisation in the immature mode has no governance systems and structures in place and therefore the IAF will perform no assurance service. The IAF can act in a consulting capacity to implement the necessary governance systems and structures. An organisation in the reactive mode will only have limited governance systems and structures in place and therefore the IAF will perform a limited assurance service and to a large extent, consulting services to enhance the organisational governance maturity of these organisations. The IAF can perform both assurance and consulting services for organisations in the compliance and integrity modes, whereas a mature organisation will benefit from an extensive assurance service to evaluate the effectiveness of organisational governance. The impact of organisational governance maturity on the role of the IAF is summarised in Table 6.

Table 6: Impact of the organisation's governance maturity on the role of the IAF

	Immature	Re-active	Compliance	Integrity	Mature
Characteristics	Governance ignored	Minimum governance practices in place	Rules-based approach Prevent mismanagement	Principles-based approach Encourage good governance	Effective combination of rules and principles Commitment to effective governance

	Immature	Re-active	Compliance	Integrity	Mature
Role of IAF	No assurance; Extensive consulting	Limited assurance; Extensive consulting	Assurance on the adequacy and effectiveness of organisational governance Consulting to enhance governance maturity	Assurance on the adequacy and effectiveness of organisational governance Consulting to enhance governance maturity	Extensive assurance; Limited consulting



Source: (Adapted from the Modes of Morality Model as presented by Rossouw & Van Vuuren, 2007:45)

5 CONCLUSION, RECOMMENDATIONS AND AREAS FOR FUTURE RESEARCH

This article explored the role of the IAF in assessing organisational governance. The concept of organisational governance was studied with reference to the notion of governance maturity. In addition, the governance process was highlighted and discussed. The governance process entails defining and interpreting organisational governance within a specific organisation, determining the governance approach to be followed, and determining the governance framework to be implemented.

Subsequently, the impact of the organisation's governance maturity on the role of the IAF was explored in the literature review.

Based on the literature, the study found that organisational governance maturity within an organisations, impacts the role of the IAF in the following ways:

- Immature governance maturity will result in no assurance role, but a consulting role to establish a governance framework;
- Reactive governance maturity will result in limited assurance and extensive consulting to enhance governance maturity;
- Compliance governance maturity will result in assurance and consulting roles;
- Integrity governance maturity will result in assurance and consulting roles; and
- Mature governance maturity will result in extensive assurance on existing governance frameworks and processes and limited consulting.

It is recommended that the IAF takes note of the mode of governance maturity of an organisation when planning its role. The role of the IAF can vary from providing assurance with regard to the adequacy and effectiveness of the governance processes to a consulting role – providing value-adding advice to enhance the governance process.

The study on which this article is based makes an initial attempt to determine the role of the IAF in assessing organisational governance, a relatively unexplored area. This fact, as well as the limitations of the study, provides future research opportunities. Further research could be conducted to develop a best practice model or framework for the assessment of the adequacy and effectiveness of organisational governance. In addition, the consulting role of the IAF with regard to organisational governance can be explored. This framework could then be incorporated into the IIA guidelines to members, which will enable the latter to more effectively provide assurance and/or consulting services relating to organisational governance.

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UNCOVERING THE POSSIBLE TAX GAP IN SOUTH AFRICA

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Abstract:

The study investigated the possible tax gap in South Africa. In order to determine the possible tax gap the Household Income and Expenditure survey of the Bureau of Market Research at Unisa was used as data source. A tax calculation equation was developed making use of the Income Tax Act and other relevant data sources. The data field in the data source was used to calculate the total household tax liability based on the equation developed for purposes of this study. This total household tax liability was compared to the amount of tax paid as declared by the households, in order to determine if any tax gap could be identified.

The analyses indicated the existence of a possible tax gap between personal tax paid by taxpayers and personal tax which should have been paid as estimated by the said tax calculation equation. Initial descriptive analyses found potential tax gaps in seven of the nine provinces. Statistical analyses performed on the data found it to be highly probable that the size of the tax gap is correlated with the income level in South Africa.

Keywords:

- | | |
|--|--|
| <ul style="list-style-type: none">• Taxable income• Total household tax liability | <ul style="list-style-type: none">• Tax compliance• Tax gap |
|--|--|

1. INTRODUCTION

Governments need money to provide goods and services. In most modern societies the bulk of this money is raised through taxes. Such taxes typically include personal and corporate taxes, broad-based consumption taxes, excise taxes on specific goods or services, payroll taxes, property or wealth taxes, wealth transfer taxes, user fees and benefit taxes. Various economic and social priorities determine the contribution of each tax to the total “mix” or tax structure which is different for each country (Organisation for Economic Co-operation and Development (OECD) 2005; African Economic Outlook 2010). Furthermore, raising revenue is usually not the only function of tax (Gregory 2009) and the various objectives or functions of tax systems are not necessarily always in agreement. Therefore, if a government does not take cognisance of the preferences of the various parties and factors that influence fiscal decisions, the efficiency of a tax system could be compromised and this may have far reaching implications (Black, Calitz, Steenekamp & Associates 2005:118).

Although people generally accept that they have to pay taxes, they are not necessarily always willing to do so. In fact, it is common knowledge that many people do not comply (i.e. by simply not paying or intentionally trying to reduce the amount of tax that they pay). The archives of the New York Times, alone, contain 2 790 articles about tax evasion (New York Times 2010). Various studies have found the existence of a possible tax gap in South Africa (Mail & Guardian 2010; Evans 2010) again confirm this possibility. Although SARS have introduced certain measures to combat the problem, they would like to reduce the tax gap (the difference that exists between the annual amount of taxes owed and the amount of tax collected) even further (SARS 2010). In this article the tax gap is calculated as the difference between the amount tax paid by the household and the amount tax payable based on the income and expenditure of the household.

Kane-Berman (2010) has raised the issue that although the proportion of the gross domestic product (GDP) taken in tax has risen from 22,5% in 1994/95 to 26,8% in 2009/10, this may have been accompanied by diminishing state efficiency in service delivery. He highlights the fact that people in top income brackets receive few direct

benefits from paying their taxes, with many paying twice over for private security, health care and education. However, although he recognises the fact that the poor receive far more from the state than what they pay in tax, he feels that they too might feel resentful because of crime in many poor areas, non-existent education and the state of public hospitals (Kane-Berman 2010).

International literature has indicated that taxpayers' perceptions about government may impact on their tax compliance (Fjeldstad 2001) and it is therefore conceivable that should South Africans feel that they are not benefitting from the money supposedly spent on their behalf, they might not be willing to pay all their taxes. In addition, SARS has recognised that the money derived from taxes cannot be increased just from broadening the tax base, but that the overall compliance climate also needs to be improved (SARS 2010).

Having indicated SARS' view about problems with the compliance climate in South Africa, it can be postulated that SARS believes that there is still a gap between total taxes that should be paid in South Africa and actual taxes received (SARS 2010). It appears from anecdotal evidence in this regard that such a tax gap is not randomly distributed by income groups but appears to be correlated with income.

2. RESEARCH OBJECTIVE

The purpose of this article is to explore the possible extent of a tax gap in South Africa and, if such a gap exists, to determine the level to which such a tax gap is linked to income levels. This article will furthermore review the existing tax gap and compliance literature and determine whether there is a relationship between the income levels of South African taxpayers and their tax compliance.

The following research hypotheses will be tested:

- H₀: There is no relationship between the income level of people in South Africa and the size of the tax gap amongst different income groups.
- H₁: There is some relationship between the income level of people in South Africa and the size of the tax gap amongst different income groups.

Using data collected by the Bureau for Market Research (BMR) at the University of South Africa (Unisa) in its annual Household Income and Expenditure survey (Masemola, Van Aardt & Coetzee 2010), a model tax calculation was designed and applied to determine the amount of tax which theoretically should have been paid by each taxpayer by income group in the different provinces (see section 5). The calculated amount of tax payable was then compared to the amount of tax these taxpayers declared to have paid in the annual Household Income and Expenditure survey (2009) in order to establish the difference or tax gap. Statistical tests mathematical tests were used to examine the probability that the size of the tax gap is correlated with income in order to determine the validity of the hypotheses stated above (see section 6).

3. THE TAX SYSTEM IN SOUTH AFRICA

The amount of revenue needed by government in South Africa is determined through a budget process which takes into account the expected expenditure and expected revenue of the different government departments. National Treasury is responsible for setting the tax regime and income tax is levied according to the Income Tax Act, No. 58 of 1962 as amended (the Act). The Act is, however, administered by the Commissioner for the SARS. The Commissioner delegates his powers to SARS officials. SARS is also responsible for the collection of taxes from taxpayers on behalf of the Government. SARS also make use of agents such as employers to collect income tax on its behalf.

The Act requires a taxpayer to register with SARS and to submit tax returns before or on set deadlines. Once SARS has received a return, an assessment must be issued to the taxpayer reflecting his or her taxable income as well as the tax payable. The taxpayer has the right to object to the assessment just as the Commissioner has the right to conduct audits and investigations into a taxpayer's affairs and is conferred various powers to ensure collection and recovery of assessed taxes.

Since 2001, income tax in South Africa has been levied on a residence basis. Tax is levied on taxable income as defined and regulated in the Act. Taxable income consists of gross income less exempt income less allowable deductions plus taxable

capital gains. Tax payable is then calculated on the taxable income of each taxpayer according to the applicable rate. Tax rates are determined annually by Parliament.

In 2009, the South African government's four biggest sources of income were personal income tax (29% of government income), company tax (27% of government income), value added tax (VAT) (26% of government income) and customs and excise (5% of government income) (National Treasury 2010 - figures for 2008/9). Individuals are taxed on a progressive basis (a maximum of 40% on taxable income exceeding R490 000 for the 2009 year of assessment). A uniform rate of tax applies to all individuals, irrespective of gender and marital status and without child rebates but with a primary and age-related rebate. Individuals generally receive most of their income as salary/wages (68.1% of personal income), pension/retirement payments and investment income (interest and dividends). Some individuals may also have business income which is taxable as personal income, for example sole proprietors and partners (SARS 2010).

Taxes are paid to SARS and transferred to National Treasury to distribute to government departments as well as provincial and local government. Government also receives money from sin taxes, loans, donations and investments. Local government obtains most of its income from selling electricity and water and from property taxes. Most of local government spending relates to services such as water, electricity, sewage, waste removal, roads and facilities (National Treasury 2010).

Non-compliance by taxpayers is one of the main causes of the tax gap and has been the subject of a vast body of academic research. Non-compliance can refer to taxpayers deliberately understating their income, overstating deductions, claiming credits or exemptions to which they are not entitled, or simply not submitting their tax returns or not submitting tax returns on time. Furthermore, calculation errors can occur on both the taxpayer's or tax authority's side. To complicate matters further, not paying taxes can also be unintentional, for instance where people simply do not understand some aspect of tax law. Since non-compliance, at least sometimes, involves breaking the law, people often try to conceal the fact that they are not fulfilling their tax liabilities. It is therefore very difficult to measure the extent of the tax gap or explain all the factors that can influence this gap.

4. FACTORS INFLUENCING TAX COMPLIANCE

As far as reasons why people do or do not pay taxes are concerned, several theories and models can be found in the literature (Lewis, Webley & Furnham 1995:227; Webley, Robben, Elffers & Hessing 1991:29-33). Early models of taxpayer compliance were based on the theory of deterrence and used an economic analysis of compliance behaviour with little attention paid to non-economic determinants of taxpaying behaviour. Subsequent research has incorporated several economic as well as non-economic determinants in compliance models, also drawing from disciplines such as sociology (i.e. legitimation problems described by Habermas) and psychology (i.e. the 'having mode' described by Fromm). Several theories and models can be found in the literature. Some, especially the earlier ones, explore economic motives (Allingham & Sandmo 1972; Cowell 1985) and others depend more on the fields of psychology and sociology (Hessing, Elffers & Christiaanse 1989 and Hasseldine & Li 1999) to analyse wider behaviour issues.

The modern approach seems to favour mixed models where the two approaches are used to reinforce each other. Both Kirchler (2007) and Torgler (2007) review and analyse existing tax compliance research and describe several determinants that may have an influence on tax compliance. Kirchler (2007) provides comprehensive insights into tax law, the shadow economy, social representations of taxes, tax compliance decisions, taxpaying by the self-employed and the interaction between tax authorities and taxpayers, while Torgler (2007) is more concerned with tax morale and describes how the relationship between taxpayers and governments can shape tax morale.

Income level has been shown to have an impact on tax compliance, but the literature is inconclusive about the exact nature of the relationship. The basic model of Allingham and Sandmo (1972) suggests that non-compliance will increase as income increases and indeed Chang and Schulz (1990) as well as Ali, Cecil and Knoblett (2001) found a positive relationship between income and tax compliance. However, other authors have found that income level is negatively associated with tax compliance (Alm, Bahl and Murray 1990; Fjeldstad and Semboja 2001). This can possibly be explained by the higher opportunity costs of evasion for those that are

better-off and the fact that they are more easily targeted by tax collectors. Feinstein (1991) found no relationship between income level and tax compliance.

In an attempt to shed more light on the association of income level with tax compliance, Lloyd Hamm (1995) designed an experiment using members of a credit union as participants. The experiment consisted of a casino night where participants paid to play games of chance, completed a simple tax return and a prize draw took place. Gambling winnings determined the participant's income level. Randomly assigned tax rates determined tax liabilities and instructions included the probability of detection and the penalty rate for non-compliance. Following the experiment, participants used net winnings after taxes to bid for prizes. The results regarding the impact of changes in income level on tax compliance turned out to be rather complex, indicating that tax compliance increases with income level at low tax rates and low income level and decreases thereafter. With high tax rates and high income levels, tax compliance drops significantly, implying interaction between the two variables.

In a survey done in eight different countries, Muelbacher, Kirchler, Hoelzl, Ashby, Berti, Job, Kemp, Peterlik, Roland-Lévy and Waldherr (2008) found that reluctance to pay taxes varied with the perceived effort that was required to earn the income. Hard-earned income seemed more likely to be reported honestly, probably because when a large-scale effort had been invested, evading taxes would involve the risk of being audited and having to pay a fine which will mean earning less income than expected. The tax compliance literature in South Africa is limited but seems to confirm the determinants of tax compliance as identified in international studies. The following determinants of tax compliance are applicable in South Africa:

- **Believe that compliance is the norm:** Alm and Martinez-Vasquez (2003) report on experiments that were conducted in three countries, namely South Africa, Botswana and the United States (US) in 1999 in order to illustrate the importance of societal institutions such as “social norm” in developing and transitional countries. In these experiments, the participants received income and had to decide how much income to report and pay tax on, with the possibility of audits and fines on any detected, undisclosed income. The process was repeated a few

times and at the end of the experiment subjects were paid according to their performance. The parameters were the same for the different countries and the observed differences in behaviour are interpreted as being motivated by differences in institutional features that may affect attitudes towards government and also other factors that may represent differences in the social norms across the countries. The results led to the conclusion that individuals will comply as long as they believe compliance is the norm but that if non-compliance becomes pervasive, the social norm of compliance disappears. The study also shows that the traditional role of tax authorities as enforcers, who treat taxpayers as potential criminals and only emphasise repression of illegal behavior, will not be optimally effective in establishing the compliance norm in society but that a service paradigm, which recognises the role of tax authorities as facilitators and as a provider of services to taxpayers and citizens, is likely to be more effective.

- **Acceptance of the plural character of South Africa:** Lieberman (2002), based on an analysis of a 1997 national survey of adult South Africans conducted by IDASA, demonstrates that varied beliefs and affective attitudes about group membership or political community, can determine a citizen's inclination to pay his/her taxes. Although he finds that income, educational level, gender, age, place of residence and race are all correlated with inclinations towards compliance, he shows that individual acceptance of the plural character of the South African nation is more important than any other socio-economic, political or cultural factor in determining South Africans' willingness to comply with their tax obligations.
- **Government's understanding of taxpayers' own role regarding tax compliance:** Several authors have commented that it is necessary for government to have a better understanding of taxpayers' and also government's own role regarding the tax compliance culture (Hlope and Friedman 2002; Smith 2003:9; Friedman 2003).
- **Perception on fairness of tax administration:** Cummings, Martinez-Vazquez, McKee & Torgler (2005) tested the hypothesis that taxpayers display different levels of compliance because of the perceptions they have about the fairness of

tax administration and their overall attitudes towards the government. They confirm the results of the experiments discussed by Alm and Martinez-Vasquez (2003) by using data from surveys conducted in 1995 and 1999/2000. Their work confirms that individuals are more willing to pay taxes when they feel that there is a fair fiscal exchange with the government (Cummings *et al* 2005) .

Three major studies confirmed that compliance costs may impact on the tax compliance of small and medium enterprises in South Africa, namely:

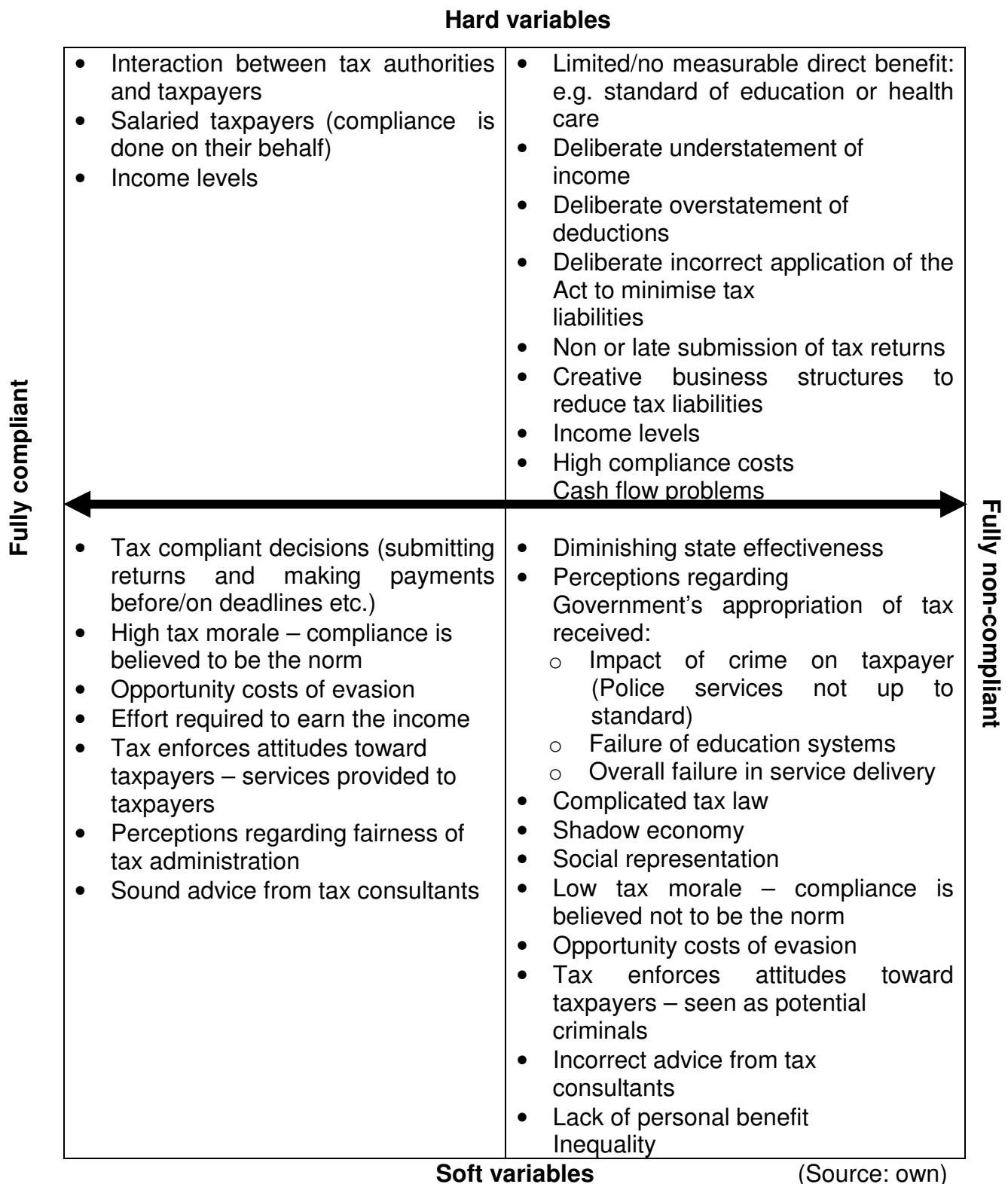
- Counting the Cost of Red Tape for Business in South Africa (Small Business Project (SBP) 2005);
- Measurement of Value Added Tax and Regional Services Council's Act induced Administrative burdens for South African Small Businesses by Upstart Business Strategies (2004) commissioned by the Department of Trade and Industry; and
- SMME Facilitation Program by the South African Revenue Services (2005).

These findings were confirmed by Abrie & Doussy (2006), Venter & De Clercq (2007), as well as Foreign Investment Advisory Service (FIAS) 2007. A study by the Human Sciences Research Council (HSRC) on behalf of SARS revealed that participants are aware of their economic as well as moral obligation to pay taxes. Participants indicated that some people (for instance the self-employed) had more opportunities to be non-compliant and suggested the following main reasons for non-compliance: ignorance of the Act, lack of diligence in completing tax returns, lack of planning and poor cash flow, incorrect advice from tax consultants and blatant dishonesty. The general consensus was that the tax system is fair. Indications were, however, that government's failure in service delivery issues and lack of personal benefit could be influencing attitudes towards tax evasion (HSRC 2005).

Gcabo and Robinson (2007) conclude that although South Africa has a compliance culture built up over many years, taxpayer behaviour is still, to a large extent, determined by economic factors, especially inequality. Oberholzer and Stack (2009) confirm that individual South African taxpayers' perceptions influence their attitudes towards tax and find that age, population group, educational background, dealings with SARS officials and views on income distribution influence respondents' attitudes

towards tax evasion. The relationship between the factors identified towards tax compliance can be summarised in figure 1.

Figure 1: Factors influencing the level of tax compliance



It is evident from figure 1 that the level to which people pay personal income tax is brought about by a large number of soft (i.e. beliefs, attitudes and morals) and hard (i.e. business practices and SARS registration status) variables. Such hard and soft variables jointly explain the marginal utility associated with paying and not paying taxes. In the context of this article the term 'marginal utility' refers to the additional satisfaction derived from each additional rand being paid to SARS in the form of taxes. In terms of utility theory the payment of a small amount of money to SARS will have a high utility value because government provides a sufficiently large number of benefits in exchange for such payments. However, as personal tax payments increase, the marginal utility associated with each extra rand being paid to SARS declines, as taxpayers feel that the amount they pay to SARS outstrips the monetary value of goods and services they receive from government. In terms of utility theory this phenomenon is referred to as the 'law of diminishing marginal utility'. This law specifies that, as people spend more on specific commodities or services, the marginal utility of such a commodity or service eventually tends to decline. In terms of this principle people would derive a high level of utility in paying tithes to their church as long as such tithes are viewed as being reasonable. Should a church for example 'demand' an increase in tithes, people will show very interesting behaviour. Some people will be unhappy and stop giving tithes, some will keep their tithes constant while others will increase their tithes. As the church demands an increase in tithes, a growing number of people will stop giving tithes or keep their tithes constant. The implication of this for taxes is that taxpayers are not just economic units paying tax money mindlessly but have specific views about government, the taxes they pay and the fairness associated with the taxes they pay compared to the returns they get on their investment in government in terms of goods and services.

Upon analysing tax gaps - gaps between tax which should be paid and tax actually paid – some interesting conclusions may be drawn based on marginal utility theory, namely:

- Due to the law of diminishing marginal utility, tax gaps are to be expected in all countries. The size of the tax gap in the different countries will however, differ based on the efficacy of tax collection systems, marginal tax rates, the extent of services and goods delivered by government and levels of satisfaction with government delivery.

- Based on a thorough understanding of utility theory, government should be able to encourage higher levels of compliance by strengthening available ‘carrots and sticks’ to optimize the marginal utility of paying taxes. While such ‘carrots’ will optimize the utility of paying taxes, the said ‘sticks’ will optimize the disutility of not paying taxes.
- As payment of taxes is in competition with expenditure on non-durable goods and services, it can be deduced from utility theory that the marginal utility of paying taxes can also be optimized by optimizing the disutility of expenditure on competing products and services.

It is therefore clear that although the compliance culture in South Africa is not necessarily negative, most factors identified in the general tax compliance literature also impact on South African taxpayers. No South African studies, specifically concerned with the relationship of income and tax compliance, were identified and the current study should therefore make a valuable contribution to the compliance literature to assist tax policy and administration.

5. METHODOLOGY

As alluded to in the preceding section of this article, it was postulated for the purposes of this article that the size of the tax gap is possibly correlated with income. The tax gap was calculated from data collected by the BMR at Unisa in its annual Household Income and Expenditure survey (2009). By means of rim weighting, the data obtained in the annual Household Income and Expenditure survey was weighted to optimise the set of weights to represent the total household population of South Africa. Reflected in table 1, is the number of households presented in each income category for 2009.

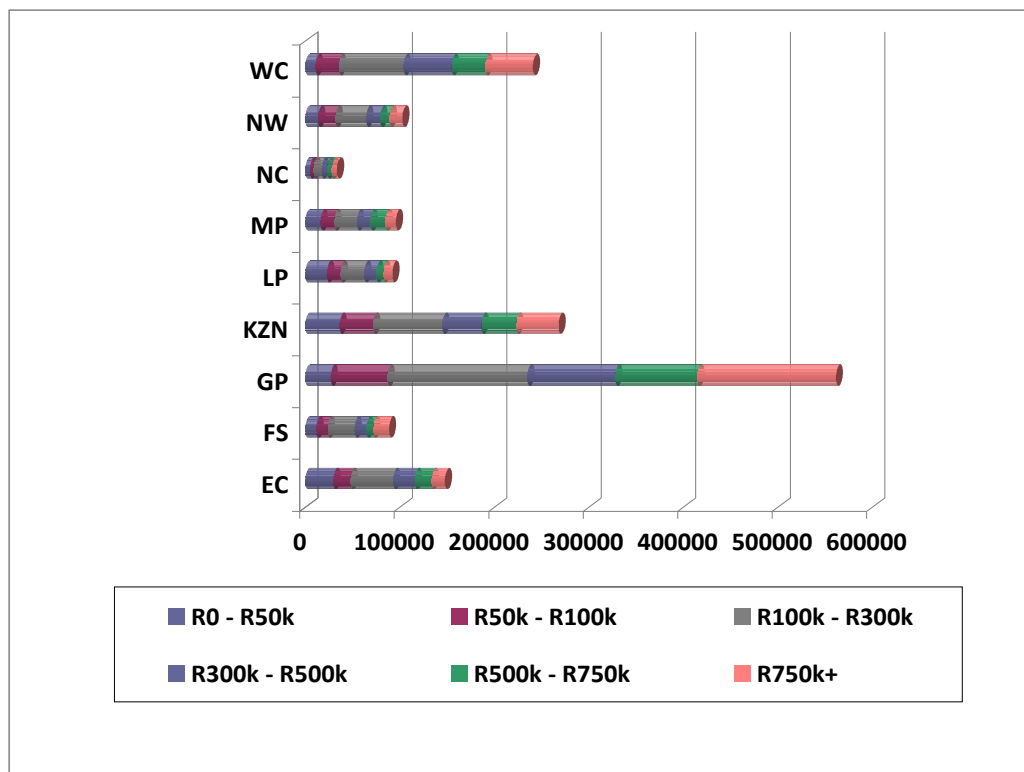
Table 1: Distribution of number of households by Income group and province

	R0 - R50k pa	R50k - R100k pa	R100k - R300k pa	R300k - R500k pa	R500k - R750k pa	R750k+ pa
Eastern Cape	1 309 053	260 509	257 648	61 527	29 223	13 198
Free State	522 255	163 940	178 180	32 049	11 519	12 200
Gauteng	924 255	826 205	876 632	242 497	142 369	120 527
KwaZulu-Natal	1 389 984	503 621	431 492	107 076	59 490	43 396
Limpopo	1 018 815	211 273	142 871	33 860	11 797	8 980
Mpumalanga	585 999	206 538	146 069	36 445	26 156	10 596
Northern Cape	194 788	55 101	49 997	15 400	7 747	4 128
North West	515 651	261 025	194 414	38 730	16 896	10 782
Western Cape	356 232	343 127	397 542	132 850	58 980	42 779
Total	6 817 032	2 831 339	2 674 845	700 434	364 177	266 586

(Source: Masemola, Van Aardt & Coetzee 2010)

There were 13 654 416 households in South Africa in 2009. Of these, 22.9% were in Gauteng compared to only 2.4% in the Northern Cape (see table 1). Table 1 also shows that KwaZulu-Natal had the highest share (20.4%) of households in the lowest income category, followed by the Eastern Cape (19.2%). In the third lowest income group, i.e. R100k-R300k, the highest percentage of households (32.8%) was in Gauteng, followed by KwaZulu-Natal with 16.1%. Gauteng had the highest number of households in all income categories with the exception of the lowest income group (Masemola, *et al.* 2010).

Figure 2: Distribution of household income by Income group and province



(Source: Masemola, *et al.* 2010)

As seen in figure 2, South African households earned a total of approximately R1 631 billion in 2009. Of this, R562 billion (34.4%), R268 billion (16.4%) and R241 billion (14.8%) accrued to households in Gauteng, KwaZulu-Natal and the Western Cape respectively. The largest income-earning groups nationally were households in the R100k – R300k income group with combined earnings of R452 billion (27.7%), followed by the highest income group (R750k+) with R311 billion (19.1%) during this period. The Northern Cape, on the other hand, had the lowest total household income. Households in this province earned just over R34.5 billion (2.1%) during 2009 (Masemola, *et al.* 2010).

Based on the household income from the Household Income and Expenditure survey (Masemola, *et al.* 2010), the equations shown below were used to calculate the tax liability and tax gaps:

In order to calculate the tax payable by a household the household income and expenditure data sets was analysed to determine which of the income and expenditure amounts must be considered when calculating a taxpayer's tax liability. The tax implications of the identified amounts were then analysed with reference to the relevant section of the Act. An initial analysis of the data sets revealed that several households had a dual income, therefore to accurately calculate the tax payable by the household and the tax gap two formulas had to be developed to calculate the tax liability. The first step in calculating the taxpayer's tax liability is calculating the taxable income, using the income and expenditure data sets the following equation was developed:

$$\pi_1 = (X_1 - X_i + X_2 + X_3 + X_4 + X_5)\beta_1 + X_6\beta_2 + (X_7 - X_8)\beta_1 + X_9\beta_3 + X_{10}\beta_4 + (X_{11} - X_{12})\beta_5 - (X_{13} + X_{14} + X_{15})\beta_6 - X_{16}\beta_7 - X_{17}\beta_8 - X_{18}\beta_8$$

$$\pi_2 = X_i\beta_1 - X_{17}\beta_8$$

Where

π_1 = Taxable income of breadwinner in household

π_2 = Taxable income of second income-earner in household

X_1 = Employment income – Paragraph (c) of the gross income definition includes all amounts received in respect of services rendered, assuming that none of the amounts comply with the requirements of section 10. The following income items were included as employment income: salaries and wages; bonuses and income; part-time work income and cash allowances; other income as well as commission and director's fees.

X_i = Second salary earned - the data set provides the salaries and wages for the household. To correctly calculate the tax liability, the household income was divided into first and second incomes, based on the Community Survey database (StatsSA, 2007). The following percentage was allocated to the second income earned: under R51 200 – 25.8%; for the R51 200 to R102 400 group – 22.7%; for the R102 400 to R204 800 group – 25.2% and for the group above R204 800 – 18.2%.

X_2 = Fringe benefits – The Seventh Schedule to the Act read together with paragraph (j) of the gross income definition section 1 of the Act includes the cash equivalent in a taxpayer's gross income. The following fringe

benefit income items are included in the current study: Housing (value of subsidies, reduced interest rates and rent, etc.) (paragraph 2(g)); Transport (value of company transport for private use, reduced air and train fares, etc.) (paragraph 2(e)) and non-refundable bursaries (paragraph 13).

- X₃ = Other income - the gross income definition includes all amounts received that are not of a capital nature. For the purpose of this study the unspecified regular income; other income; all other income not elsewhere specified; other gratuities; family and other allowances and unspecified other income are included in this group.
- X₄ = Net profit – Section 1 of the Act includes income derived from a trade in a taxpayer's gross income. For the purpose of this study it is assumed that all the expenditure deducted in the calculation are deductible in terms of section 11(a) of the Act.
- X₅ = Annuities received – Paragraph (a) of the gross income definition includes all annuities received in a person's taxable income. The following income items were included under this group: pension resulting from employment and annuities and similar recurring receipts. For the purpose of this article it is assumed that none of these annuities complies with section 10A of the Act.
- X₆ = Royalties.
- X₇ = Interest received.
- X₈ = Interest exemption, section 10(1)(i) provides exemption for interest received based on the age of the taxpayer and the source of the interest received.
- X₉ = Regular allowances, for example travel allowance.
- X₁₀ = Property for holiday purposes.
- X₁₁ = Lump sums resulting from employment before retirement – these amounts constitute gross income in terms of paragraph (d) of the gross income definition.
- X₁₂ = The Act provides for a once-off exemption of R30 000 in terms of section 10(1)(x) of the Act. The exemption will be applied if the amount is received due to loss of office, old age, ill health or the employee becomes redundant as a result of a personnel reduction. Considering the fact that during the period under review South Africa lost more than 1 million jobs, it is

assumed that the majority of these amounts are either paid due to retrenchment or retirement (StatsSA 2010).

- X_{13} = Pension, provident, medical and annuity funds (value of employer's contribution) – these amounts have no value in terms of the Seventh Schedule.
- X_{14} = Exempt income – Section 10 of the Act exempts certain amounts from income tax, the following income items were included in this group: dividends on shares (section 10(1)(k)); alimony, maintenance and similar allowances (section 10(1)(u)); Workmen's Compensation (section 10(1)(gB)(i)); old age and war pensions (section 10(1)(g)); disability grants (section 10(1)(gA)); Funeral funds, including funds' contributions to funeral expenses (section 10(1)(gD)) and lump sums received from the Workmen's Compensation, Unemployment insurance, Pneumoconiosis and Silicosis Funds and other similar funds (section 10(1)(gB)).
- X_{15} = Non-taxable amounts – certain amounts that do not normally comply with the requirement of the gross income definition, for example being of a capital nature. The following amounts are included in this group: benefits, donations and gifts; cash (including bonuses from buying associations); value of food received; value of housing (including benefits, such as the value of rent deductions allowed by persons and organisations other than an employer); value of clothing (not received from employer); value of other benefits, donations, gifts, etc.; other income (e.g. from gambling, lotto winnings); net income from hobbies, side-lines and part-time activities and endowment policies and other similar lump sums.
- X_{16} = Private expenses – sections 23(a) and 23(b) prohibit the deduction of private and domestic expenses. All the private and domestic expenses included in the data base are therefore grouped together as not deductible. The following are examples of private or domestic expenses: food; clothing, footwear and accessories; housing & electricity; insurance policies etc.
- X_{17} = Pension, provident and annuity funds contributions – amounts paid subject to limitations discussed hereafter. The household income and expenditure survey does not distinguish between contributions made towards pension

funds, provident funds and retirement annuity funds (respectively). In terms of the Act the type of fund to which the contributions are made determines the deductible amount. Contributions to pension funds are deductible in terms of section 11(k), effectively 7,5% of retirement funding employment income can be deducted. No deductions are allowed for contributions to provident funds. Section 11(n) of the Act allows contributions to retirement annuity funds, effectively limited to 15% of non-retirement funding employment income. Due to the nature of the contribution data, the amount deductible will be limited to 7,5% of the salaries and wages.

X_{18} = Medical and dental expense - section 18 of the Act allows certain deductions for medical and dental costs, medical aid contributions and other qualifying medical expenditure as listed in the expenditure survey were used to calculate the tax deductible amounts. The Act provides for a deduction of medical aid fund contributions based on the number of dependants of the fund. The balance of medical costs can be deducted after deducting 7,5% of the taxable income after the medical contribution deduction. Taxpayers who are 65 years and older, as well as disabled persons, are allowed to deduct all medical costs. The study assumed that the household consists of four members for purposes of calculating the family limit (Masemola, *et al.*, 2010).

β_1 = 1.00: the full amount is included in the calculation of taxable income

β_2 = 0.95: the full amount received is included in income but the taxpayer will be allowed to deduct certain costs incurred in the production of income in terms of section 11(a) of the Act.

β_3 = 0.60: The 2009 Tax Statistics (SARS 2009) shows that during the 2008 year of assessment individual taxpayers were able to deduct expenses amounting to 39,93% of the total allowances received. Based on this analysis, only 60% of the allowances received are included in the taxable income.

β_4 = 0.25: The letting of accommodation is specifically included in the definition of a trade, the income received is included in gross income and the expenses incurred in the production of income will be deductible. Although no accurate figure of the level of expenses could be found, based on

discussions with several topic experts a possible deduction of 75% plus, was indicated. Therefore, 25% of the income received is included in the study.

- $\beta_5 = 0.65$: The employee qualifies for the exemption, where anyone of the aforementioned requirements are satisfied (refer X_{12} above) (provided the exemption has not been used before, or only partially used; in other words it is a once in a lifetime exemption). For the purposes of our tax calculation, we have assumed that the requirements of section 7A(4A) (after applying the section 10(1)(x) exemption) of the Act have been met. Lump sums per paragraph (d) of the gross income definition are subject to the provisions of section 7A(4A) of the Act. This section provides for the rating concession (section 5(10) of the Act) to apply. As the effect of the rating concession depends on various factors, it is not possible to determine the correct amount to be included. The study includes 65% of the amount received to compensate for the effect of section 7A(4A) of the Act.
- $\beta_6 = 0.00$: no portion of the amount is included in the calculation of taxable income.
- $\beta_7 = 0.00$: no portion of the amount is deducted in the calculation of taxable income.
- $\beta_8 = 1.00$: the amount calculated after the application of the limitation as discussed in the variable.

The following formulas were used to calculate the tax liability of the household:

$$\pi_3 = (\alpha + \beta_9(\pi_1 - X_{19})) - X_{20}$$

$$\pi_4 = (\alpha + \beta_9(\pi_2 - X_{19})) - X_{20}$$

$$\pi_5 = \pi_3 + \pi_4$$

Where

π_3 = Tax payable by breadwinner in household.

π_4 = Tax payable by second income earner in household.

π_5 = Total tax payable by household.

α = Initial amount for the tax bracket in which the taxpayer's taxable income falls into.

β_9 = rate applicable to the bracket in which taxable income falls

X_{19} = Amount from which the tax bracket is applied to.

X_{20} = Tax rebate that the taxpayer qualifies for depending on the age of the taxpayer.

The following formula was used to calculate the tax gap:

$$\pi_6 = (\pi_5 - X_{21}) / \pi_5 \times 100\%$$

Where

X_{21} = Income tax paid as provided by households

π_6 = percentage difference between calculated and declared tax liability

The next section of the article discusses the probability of the location of the tax gap based on the income groups of the households. Finally, the implications from the results are discussed and possible future research topics are identified.

6. PROBABILITY OF THE LOCATION OF THE TAX GAP

Based on the abovementioned equations, the taxation payable by households in South Africa calculated, amounted to R217.1b compared to National Treasury's budgeted revenue estimate for persons and individuals of R207.4b, as reported in the 2010 Budget Review (National Treasury, 2010b:73) for the 2009/10 year of

assessment. This indicated a possible tax gap relating to households of R9.7b. Table 2 contains a breakdown of the potential tax gap per household per province.

Table 2 Average potential tax gap per household per province

Province	Age 16-64 (R)	Age 65 and over (R)	Grand Total (R)
Eastern Cape	-2 427	-4 832	-3 630
Free State	1 661	3 485	2 573
Gauteng	4 403	-1 554	1 566
Kwazulu-Natal	2 360	558	1 459
Limpopo	1 248	874	1 061
Mpumalanga	305	-1 612	-608
North West	1 731	2 581	2 149
Northern Cape	-1 320	839	-274
Western Cape	5 933	1 617	3 991
Grand Total	1 544	213	896

To determine the probability that there is a relationship between the level of the household income and the size of the tax gap, the following proposition was constructed:

$$(TG_i - AI_i) - (N - n_i)$$

Where

TG_i = The tax gap per income group.

AI_i = Median per income group.

N = The number of income groups ($N = 33$).

n_i = The number of the specific income group.

Diagnostic tests were performed to determine the integrity of the results obtained. Two main diagnostic tests were used; firstly Herfindahl index was used to determine the stability of the data. Secondly, the concentration coefficient was used to determine the level to which there is a logical distribution of the tax gap across income groups. For the purposes of these analyses, all income groups below the tax threshold (below R4 000) was merged into one group. Due to differences in the calculation of the tax liability based on the age of a taxpayer, e.g. a taxpayer of 65 years of age and older can deduct all medical expenses, whilst taxpayers under 65 years are subject to limitation, the analyses were divided between the two age categories. The results of the diagnostic tests can be found in table 3.

Table 3 Reliability and validity test results

	Herfindahl index	Concentration Coefficient
Under 65 years	0.314718	0.742230
65 years and older	0.113953	0.352114

The Herfindahl index indicates that there is some volatility in the results of the analyses performed on the data and therefore the results of the construct should be interpreted with caution. The concentration coefficient indicates that there is a deterministic distribution of the tax gap across income groups, especially in the under 65 year of age group.

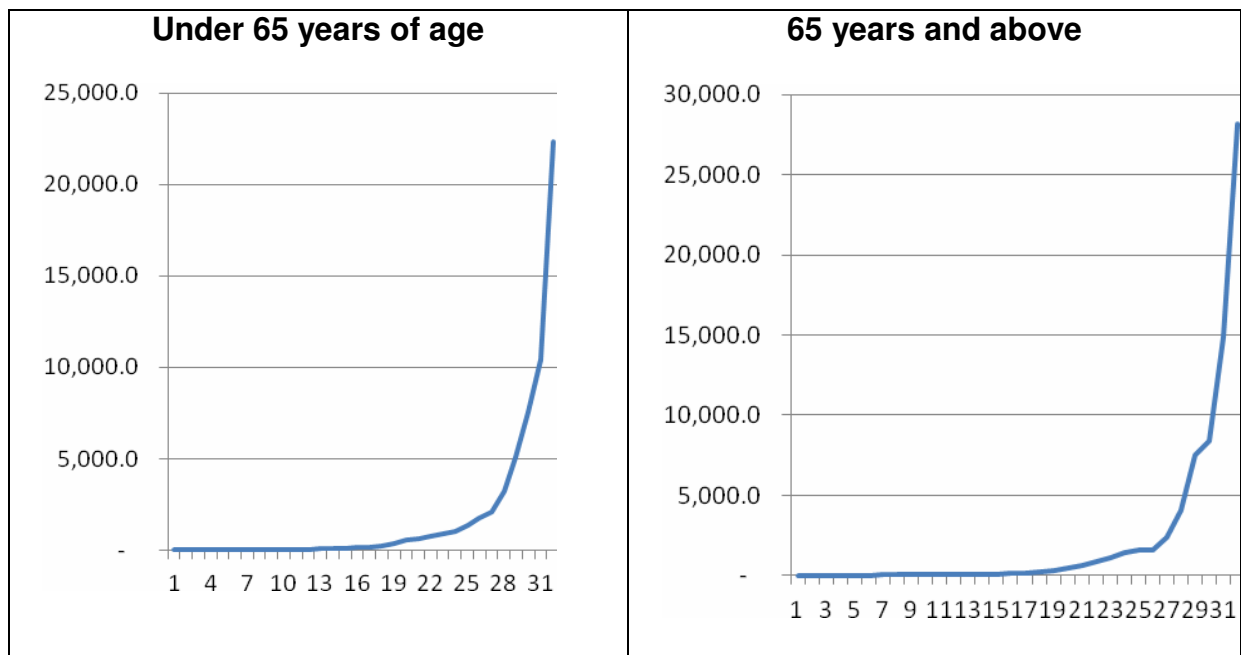
The results of the probabilistic analyses of the relationship between tax gap and income group are provided in table 4 and figure 3. It is evident for the probabilistic relationship scores shown in table 4, that while such scores for people earning R22 500 per month or lower were relatively low, such scores increased significantly with respect to people earning more than R22 500 per month. The implication of this is that people earning R22 500 per month or less were generally paying the taxes they were supposed to pay, while the situation changed significantly with respect to higher income earners.

Table 4: Proposition constructed – relationship between movement in income level and tax gap

Group number (n)	Average income (AI) R	Under 65 years		Over 65 years	
		Calculated average tax gap (TG) R	Probabilistic relationship score	Calculated average tax gap (TG) R	Probabilistic relationship score
1	-	0	-	0	-
2	100.00	0	-	0	-
3	250.00	0	-	0	-
4	350.00	-0.07	0.0	0	12.1
5	450.00	-1.47	0.1	-0.35	16.1
6	550.00	-3.08	0.1	-1.40	20.4
7	650.00	-0.06	0.0	-2.17	25.1
8	750.00	-0.32	0.0	0	30.0
9	850.00	-1.46	0.1	0	35.4
10	950.00	-3.43	0.1	-0.06	41.3
11	1 050.00	-1.29	0.1	-0.24	47.7

Group number (n)	Average income (AI) R	Under 65 years		Over 65 years	
		Calculated average tax gap (TG) R	Probabilistic relationship score	Calculated average tax gap (TG) R	Probabilistic relationship score
12	1 150.00	-1.03	0.0	-0.44	54.8
13	1 300.00	-3.30	0.2	-2.19	65.1
14	1 500.00	-6.98	0.4	-6.27	79.3
15	1 800.00	-17.78	1.0	-0.74	100.0
16	2 200.00	-49.51	2.9	-16.44	130.4
17	2 750.00	-141.64	8.9	-11.07	172.6
18	3 500.00	-357.14	23.8	-33.25	235.5
19	4 500.00	-870.86	62.2	-198.05	335.6
20	5 500.00	-1 528.12	117.5	-488.44	460.6
21	6 500.00	-1 232.92	102.7	-1 036.75	628.1
22	7 500.00	-842.59	76.6	-1 726.79	838.8
23	8 500.00	-314.88	31.5	-2 389.53	1,089.0
24	9 500.00	15.07	-1.7	-3 373.10	1,430.3
25	10 500.00	-515.88	64.5	-2 257.73	1,594.7
26	11 500.00	-927.51	132.5	225.13	1,610.7
27	12 000.00	-609.54	101.6	-2 479.55	2,413.3
28	14 000.00	-2 024.27	404.9	-6 445.60	4,089.1
29	18 000.00	-2 478.22	619.6	-12 029.50	7,507.4
30	22 500.00	-123.64	41.2	-2 716.78	8,405.6
31	27 500.00	6 684.75	-3,342.4	-2 331.95	14,916.0
32	35 000.00	12 623.16	-12,623.2	6 829.23	28,170.8
33	50 000.00	43 675.67	n/a	37 169.65	n/a

Figure 3: Location of the potential tax gap



The results shown clearly indicate that there is a relationship between the growth in the households' income level from one group to the next and the extent of the possible tax gap. Figure 3 indicates that the constructed proposition is more deterministic and consistent for the under 65 year of age group compared to the over 65 group.

Based on the theoretical and empirical perspectives provided in this paper, it can be postulated that this gap results *inter alia* from higher income earners:

- attaching a lower level of legitimacy to government which encourage them to not be fully compliant;
- by attaching a high value to having a lot of money to buy things instead of giving more to government;
- by being of the opinion that they can get away by being somewhat or fully non-compliant;
- by believing that identified non-compliant persons are not sufficiently penalised;
- by social norms not compelling higher income earners to be fully compliant;
- by the attitudes of higher income earners not being facilitative towards compliance;

- by the tax authorities not having the institutional capacity to fully enforce compliance; and
- by high income earners attaching a low marginal utility to compliance.

7. CONCLUSION AND RECOMMENDATIONS

In this study the existence of a tax gap for the different income groups in the household income and expenditure survey was investigated. A framework for calculating the tax liability of the different households was developed. The tax gap per income group was then calculated by calculating the tax liability using the income and expenditure declared in the survey and the amount of tax paid as declared in the survey.

Based on the analyses performed, a strong probability associated with the existence of a relationship between the increase in the income group and the size of the tax gap was found. Based on the analyses performed, the null hypotheses can be rejected as there appears to be some relationship between the taxable income of persons and the size of the tax gap amongst different income groups. Future studies could investigate possible reasons that may influence taxpayers' willingness to pay tax.

The findings of this study have many implications for policymakers and tax authorities, including *inter alia*, that full compliance still needs to be realised and that a specific emphasis should be placed in ensuring compliance among high income earners. This will necessitate both policymakers and tax authorities to re-evaluate current policies to improve compliance, especially in the higher income groups. This could imply *inter alia* giving SARS unlimited access to all data sources, ensuring the skilling and re-skilling of SARS personnel and through SARS providing the necessary assistance to possible non-compliant taxpayers to become and remain compliant.

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