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CONTENTS

# REVIEW OF CORPORATE GOVERNANCE BUNDLE

***Ahmed Mohsen Al-Baidhani****

**Abstract**

Due to the importance of corporate governance in our business world today, especially after the frequent non-stop financial crises, and since one corporate governance mechanism may not fulfill the purpose, researchers recently came up with a bundle of corporate governance mechanisms which may complement each other or substitute one another. This paper reviews the literature as regards the evolution, development, current application, and potential future use of this bundle, together with relevant critiques.

**Keywords:** Bundle, Corporate Governance, Mechanism, Practice

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## 1. Introduction

Corporate governance is a system used to direct and control an organization. It includes relationships between, and accountability of, the organization's stakeholders, as well as the laws, policies, procedures, practices, standards, and principles which may affect the organization's direction and control (Cadbury, 1992). It also includes reviewing the organization's practices and policies in regard to the ethical standards and principles, as well as the organization's compliance with its own code of conduct.

Corporate governance has become one of the most topical issues in the modern business world today. Spectacular corporate failures, such as those of Enron, WorldCom, the Bank of Credit and Commerce International (BCCI), Polly Peck International, and Baring Bank, have made it a central issue, with various governments and regulatory authorities making efforts to install stringent governance regimes to ensure the smooth running of corporate organizations, and prevent such failures. A corporate governance system is defined as a more-or-less country-specific framework of legal, institutional and cultural factors shaping the patterns of influence that shareholders (or stakeholders) exert on managerial decision-making. Corporate governance mechanisms are the methods employed, at the firm level, to solve corporate governance problems.

Since the corporate governance bundle is viewed as a combination of corporate governance practices or mechanisms (Rediker and Seth, 1995; Ward et al., 2009; Aguilera et al., 2011; Schepker and Oh, 2013; Yoshikawa et al., 2014), firm performance cannot depend on the effectiveness of any one mechanism alone, but on the effectiveness of the whole bundle of mechanisms; and it is very difficult to find a bundle of mechanisms that is effective as a whole. In addition, the governance practices or mechanisms within the same bundle may not relate to each other in a cumulative and monotonic fashion as this requires higher costs and over-governance (Garcia-Castro et al., 2013). Meanwhile, Turnbull (1997) stated that corporate governance scholars should accept the possibility that some people behave as opportunistic self-serving agents while others behave as selfless stewards. Therefore, no one theory or model would be sufficient for understanding, evaluating or designing governance structures.

This paper focuses on reviewing the corporate governance bundle in order to provide an in-depth understanding of the accounting research perspectives and its application to accounting research. The data used are extracted from relevant journal articles that reflect the background of the bundle, its application, and potential future use. In addition to this first section, this paper is organized as follows: the second section provides a background; the application of the bundle is provided in the third section; followed by discussion in the fourth section; and finally conclusion and future research provided in the last section.

## 2. Background

Corporate governance is traced back to the early 1930s and the publication of Berle and Means "The Modern Corporation and Private Property". It is viewed as an indispensable element of market discipline and this is fuelling demands for strong corporate governance mechanisms by investors and other financial market participants (Blue Ribbon Committee 1999). It deals with the ways in which the corporations' financiers assure themselves of getting a return on their investment, answering the following questions: How do these financiers get managers to return some of the profits to them? How do they make sure that managers do not steal the capital they supply

or invest it in bad projects? How do they control managers? (Shleifer and Vishny, 1997).

Although the majority of the respective researchers indicate that Rediker and Seth introduced the concept of the "bundle of governance mechanisms" in 1995 under the section titled "Cost–Benefit Analysis", some researchers, such as Ward et al. (2009) added that the idea of complementarity and substitutability among control mechanisms can be traced back to the works of Milgrom and Roberts of 1990 and 1995. Millar (2014) defined corporate governance bundles as structures or combinations of rights and responsibilities that operate or interact for the governance of organizations. Aguilera et al. have a history in this regard, as follows: Aguilera et al. (2008) talked about the complementarities of different corporate governance practices; Aguilera et al. (2011) talked about the bundle as a useful tool to examine corporate governance models across and within countries, emphasized that the bundles of corporate governance practices is becoming more important in comparative corporate governance researches, and they categorized the bundle into two governance mechanisms: 1- Complementarity: when the adoption of one increases the marginal returns of the other, and 2- Substitutability:

Replacement of one mechanism by the other, while the overall functionality of the system remains unaffected; Aguilera et al. (2012) indicated that the importance of the bundle of corporate governance practices is becoming more salient in corporate governance researches; and Garcia-Castro et al. (2013) found, among other things, that there are multiple bundles of firm-level governance practices that lead to high firm performance.

Researchers agree on the existence of the complementarity and substitutability relationships and consequent effects within the bundle of corporate governance mechanisms; however, each researcher looked at these relationships and effects from different angle. For example, Rediker and Seth (1995) found that there are substitution effects within various corporate governance mechanisms, and that there is a relationship between monitoring by outside and inside directors (on one side) and monitoring by large outside shareholders and inside directors (on the other); Azim (2012) found that the corporate governance bundle is effective in aligning managers' and shareholders' interests, but the effect of any one mechanism may not provide similar results due to the above complementarity and substitutability relationships; Schepker and Oh (2013) found that multiple governance mechanisms are used by boards and owners as complements to limit managers' opportunism; and that organizations may use other governance mechanisms as trade-offs to limit managers' powers; Aslan and Kumar (2014) indicated that there are substitutability and complementarity effects among individual firm-level governance; Kim and Ozdemir (2014) reveal that governance mechanisms from both firm's internal and nation's external levels could be aligned to form national governance bundles; Yoshikawa et al. (2014) highlighted the role of bundles of governance practices in influencing directors' engagement in governance behavior.

With all due respects to the above valuable studies and findings, it is still not clear whether one can find an effective whole bundle of mechanisms that can be used to practice the aforementioned complementarity and substitutability. Moreover, the governance practices within the same bundle may not relate to each other in a cumulative and monotonic fashion as this requires higher costs and over-governance (Garcia-Castro et al., 2013). In addition, the range of combinations of corporate governance practices that firms can adopt might be partly limited by the environment, and/or be constrained by the set of governance practices available (Aguilera et al., 2011).

As regards the theories related to the corporate governance bundle, a few previous studies show such relationship. For example, Aguilera et al. (2008) criticized corporate governance research, especially within principal-agent theory and stakeholder theory, and proposed a framework for looking at environmental interdependencies of corporate governance in terms of costs, contingencies, and complementarities related to various well-known practices. In similar context, Young et al. (2008) argued that principal-principal conflicts between controlling shareholders and minority shareholders result from concentrated ownership and other ownership and control issues, and that such conflicts alter the dynamics of the corporate governance process which require remedies different from those that deal with principal–agent conflicts. Consequently, I agree that there is no one size fits all, that the institutional setting in emerging economies calls for a different bundle of governance mechanisms since the corporate governance conflicts in these economies are principal-principal conflicts, rather than principal-agent conflicts.

Moreover, Ward et al. (2009) examined governance bundles under both agency and stewardship theories to tie together previous empirical research and advance theory. They did a good job in reconciling prior disparate findings as to whether or not these governance mechanisms act in a complementary or substitutable fashion. They also showed that, under conditions of poor performance, shareholders can provide effective external monitoring that can improve the firm's overall governance effectiveness. In addition, Young (2014) contends that scholars, particularly British scholars, should look at four sets of ideas that have each played an important part in shaping the UK governance system: agency theory, resource dependence theory, stewardship theory, and stakeholder theory; especially the agency theory as it is the most influential theory

that scholars first turn to, and which has helped to shape recent codes of practice in governance. It is worth-mentioning again that no one theory or model would be sufficient for understanding, evaluating, or designing governance structures since some people behave as opportunistic self-serving agents while others behave as selfless stewards.

In addition to the complementarity and substitutability uses of the corporate governance bundle and the relevant theories employed, a few pervious researches were conducted about national corporate governance bundles. For example, Aslan and Kummar (2014) proposed and implemented a model for forming national governance bundles by combining individual national governance factors that are correlated to agency costs at the firm level, confirming that by providing readily available indicators of different agency costs at this level, these bundles can guide policymakers in setting the legal and regulatory framework for corporate governance at the national level. Moreover, Kim and zdemir (2014) found that governance mechanisms from both firm's internal and nation's external levels could be aligned to form national governance bundles. In the same context, Millar (2014) argued that formal institution and laws develop in alignment with the informal governance mechanisms, and that these formal and informal components of the bundle interact to accomplish the desired corporate governance. With all due respects to the above and other relevant studies, it should be noted that a lot of theoretical and empirical work remains to be done in order to help us understand the varieties of corporate governance practices at both the firm and country levels.

## 3. Application of the Corporate Governance Bundle

In addition to the aforementioned evolution and development of the corporate governance bundle, the table 1 summarizes the application of the bundle in chronological order.

## 4. Discussion

Although the literature indicates that the application of the corporate governance bundle has many advantages, it also specifies some relevant limitations. The advantages and limitations are summarized as follows: First, it indicates that the combinations of firm-level corporate governance practices embedded in different national governance systems lead to high firm performance, but firm performance depends on the effectiveness of the bundle, not on any one mechanism alone which makes us wonder how we may reach to such a whole-bundle effectiveness; additionally, the effect of any one mechanism may not provide similar results due to the substitute and complementary relationships. Second, it appears that some costs are justified by the benefits that will be attained by using the corporate governance bundles while other costs might not be justified; that is additional benefits of employing an internal governance mechanism (when combining both internal and external mechanisms) may not always overcome the costs of doing so depending on the existence of governance mechanisms in the external context, and on whether the governance practices in the same bundle relate to each other in a cumulative and monotonic fashion or not; and the question is: how can we know which costs may/may not be justified in order to determine whether to use the relevant bundle or not. Third, the literature also indicates that boards and owners use the bundle to limit the manager's opportunism, and that using the bundle leads to involvement of directors in governance behavior, but this also falls short since some people behave as opportunistic self-serving agents while others behave as selfless stewards, and consequently no one model or theory would be sufficient for understanding, evaluating or designing governance structures.

Fourth, it is argued that there are other advantages of employing the bundle, such as using it in comparative corporate governance researches, forming national governance bundles, and combining internal and external mechanisms into bundles that operate both at the firm and national levels and that guide policymakers in setting the legal and regulatory framework of corporate governance at the national level; but in addition to being costly, the combinations of corporate governance practices that can be adopted could be limited by the environment, culture and ethical demands of the country where a firm operates, as well as by the availability of the set of governance practices.

**Table 1**. Summary of the application of the bundle in chronological order

| Study | Country and/or Field of Study | Findings/Results/Insights |
|---|---|---|
| Rediker, K. and Seth, A. (1995) | Board of Directors and Substitution Effects of Corporate Governance Mechanisms | Since a variety of mechanisms are used to achieve alignment of the interests of shareholders and managers, the level of a particular mechanism should be influenced by the levels of other mechanisms which simultaneously operate in the firm. There are substitution effects within the various corporate governance mechanisms. There is a relationship between monitoring by outside directors and the following mechanisms: monitoring by large outside shareholders, mutual monitoring by inside directors, and incentive effects of shareholdings by managers. |
| Aguilera, R.V., Filatotchev, I., Gospel, H., and Jackson, G. (2008) | Effectiveness of corporate governance in diverse organizational environments in Germany, Japan, Italy, France, Russia, USA, and UK | Developed a critique of corporate governance research, especially within principal-agent theory and stakeholder theory; and proposed a framework for looking at environmental interdependencies of corporate governance in terms of costs, contingencies, and complementarities related to various well- known practices. |
| Young, M. N., Peng, M. W., Ahlstrom, D., Bruton, G. D., and Jiang, Y. (2008) | Emerging economies. Corporate Governance: Review of the Principal-Principal Perspective | Principal–principal conflicts between controlling shareholders and minority shareholders result from concentrated ownership, extensive family ownership and control, business group structures, and weak legal protection of minority shareholders. Such principal–principal conflicts alter the dynamics of the corporate governance process and, in turn, require remedies different from those that deal with principal–agent conflicts. The institutional setting in emerging economies calls for a different bundle of governance mechanisms since the corporate governance conflicts often occur between two categories of principals – controlling shareholders and minority shareholder. |
| Ward, A. J., Brown, J. A., andRodriguez, D. (2009) | Anglo-Saxon Countries. Corporate Governance Bundles, Firm Performance, and Substitutability and Complementarity of Corporate Governance Mechanisms | Examined governance bundles under both agency and stewardship theories to tie together previous empirical research and advance theory. In specifying the role of firm performance in determining the mix of mechanisms within the governance bundle, the authors reconciled prior disparate findings as to whether or not these governance mechanisms act in a complementary or substitutable fashion. Also showed that, under conditions of poor performance, shareholders can provide effective external monitoring that can improve the overall governance effectiveness of the firm. |
| Aguilera, R., Desdender, K., and Castro, L. (2011) | A bundle perspective to comparative corporate governance | There is a wide range of combinations of corporate governance practices that firms can adopt which might be partly limited by the environment but are also constrained or enabled by the set of governance practices available. |
| Aguilera, R.V. (2012) | France and Germany. Analysis of Michel Goyer's book "Contingent Capital" | The critical insight here is the importance of bundles of corporate governance practices, which is becoming more important in comparative corporate governance researches. |
| Azim, M. I. (2012) | Australia. Impact of Corporate Governance Mechanisms on Company Performance | Although the corporate governance bundle is effective in aligning managers' and shareholders' interests, the effect of any one mechanism may not provide similar results due to the substitute and complementary relationships. This research provides insights into how the bundle of monitoring mechanisms works to reduce the agency problem. |
| García- Castro, R., Aguilera, R. V., and Ariño, M. A. (2013) | United Kingdom and others. Analysis of Bundles of Firm Corporate Governance Practices | Using fuzzy set/qualitative comparative analysis, the authors found: 1- that within each of the national corporate governance models, there are multiple bundles of firm-level governance practices leading to high firm performance, 2- evidence of complementarity and functional equivalence between corporate governance practices, and 3- that there can be differences in firm governance practices within each model of corporate governance. |
| Schepker, D. and Oh, W. (2013) | 288 U.S.-based firms. Corporate Governance Mechanisms Effects: Complementary or Substitution | Multiple governance mechanisms are used by boards and owners as complements to limit managers' opportunism; and that organizations may use other governance mechanisms as trade- offs to limit managers' powers. |

**Table 1**. Summary of the application of the bundle in chronological order (Continue)

| Study | Country and/or Field of Study | Findings/Results/Insights |
|---|---|---|
| Kim, Y. and Ozdemir, S. (2014) | 23 countries from all continents | Internal and external governance mechanisms could be combined into Bundles. They indicate: additional benefits of employing an internal governance mechanism may not always overcome the costs of doing so depending on the existence of governance mechanisms in the external context. This finding shows that governance mechanisms from both firm's internal and nation's external levels could be aligned to form national governance bundles. This complementarity supports open systems arguments of corporate governance and rejects the idea of one optimal governance structure. The authors integrated various theories of corporate governance to explain the way a firm structures its board to perform its fiduciary roles effectively. |
| Millar, C. (2014) | The Existential Issue of National Governance Bundles | Culture and ethical demands of the country where a firm operates affect the development of governance bundles. Formal institutions and laws develop in alignment with the informal governance mechanisms. These formal and informal components of the bundle interact to accomplish the desired corporate governance, and will be subject to change if they fail to satisfy society's wishes. Therefore, there is a continued use of a mixture of governance mechanisms. |
| Schiehll, E., Ahmadjian, C., and Filatotchev, I. (2014) | Across and within National Systems. Understanding the Diversity of Corporate Governance Practices at the Firm and Country Levels | The articles and commentaries included here reveal the promise of national governance bundles, and hint at how much empirical and theoretical work remains to be done. Taken as a whole, they show how attention to the interplay between firm- and country-level governance mechanisms enriches our understanding of comparative corporate governance and helps to identify how and why governance practices vary both across and within national systems. |
| Yoshikawa, T., Zhu, H., and Wang, P. (2014) | Industrialized and Emerging Economies. Why and how different combinations of governance practices at national level and at firm level enable or constrain outside directors to engage in their monitoring and resource provision roles | This study enriches the growing body of research on governance complementarity and substitution by highlighting the role of bundles of governance practices in influencing directors' engagement in governance behavior, and consequently advancing our understanding of variation in corporate governance systems across and within countries. |
| Young, D. (2014) | UK and others. Theories behind Corporate Governance | The argument that there is no alternative to Britain's 19th century governance arrangements is simply based on ignorance, special interest pleading or a blinkered resistance to healthy change. It's about time to revise the legal structures and governance arrangements to be compatible with the modern world. We should look at four sets of ideas that have each played an important part in shaping the UK governance system: agency theory, resource dependence and stewardship theories, and stakeholder theory. Probably the most influential one in this context is agency theory, which is the one that we first turn to, and which has helped to shape recent codes of practice in governance. |

## 5. Conclusion and Future Research

This paper is set out to review the literature as regards the evolution and development of the corporate governance bundle. The paper provides historical and theoretical background of the bundle, its current application and potential future use, together with relevant critiques. In conclusion, there is no doubt that application of the bundle leads to many benefits both at the firm and national levels even though this application has started recently, relatively speaking.

Yet, there is work that remains to be done. Future researches could provide ways to overcome the aforementioned limitations. They may also include: looking towards the contingencies and mediators that may affect the complex relationship between management and shareholders and the bundle of mechanisms that are under the board of directors' control; examining additional types of blockholders such as foreign and strategic investors, and additional firm-level governance mechanisms such as compensation of directors and managers, to develop a more comprehensive understanding of corporate governance bundles; associating between national governance bundles and firm performance to understand whether and how different national governance bundles lead to higher firm performance or whether firm performance acts as a mediator of how monitoring forces of national- and firm-level mechanisms interact; continue examining the concept of national governance bundles by incorporating other combinations of internal governance mechanisms chosen at the firm level (i.e., level of ownership concentration), external mechanisms imposed at the national level (i.e., corporate governance codes), and even mechanisms at the intersection of firm and national levels; and examining the performance and dynamic change aspects of various national governance bundles, answering questions such as: Would firms with the most common governance structure for a nation be better off than those who do not fall into that category? Is there such a thing as a particular combination of governance mechanisms operating at the firm and national levels that is most successful?

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# SERVQUAL: STUDENTS' PERCEPTION AND SATISFACTION WITH REGARDS TO QUALITY OF SERVICE PROVIDED BY STUDENT ADMINISTRATION DEPARTMENTS WITHIN TERTIARY INSTITUTIONS

***Corinne E. Nell* , Michael C. Cant*****

**Abstract**

To deliver quality service can be regarded as a key success factor for any tertiary institution that wants to be successful and profitable. It is evident that many tertiary institutions are ignorant towards the level of service they provide to their students. This can have either a positive or a negative effect on their students' attitudes towards the institution. As a result of this a study was conducted among South African students that were registered at a tertiary institution. It is believed that the issues identified in a South African context will be applicable to students on an international scale, as there are huge similarities of this nature between universities in different countries. The aim of this study was to determine students' perceptions and their satisfaction with the quality of services provided by Student Administration departments within the tertiary institution. Their perception and satisfaction was measured based on the SERVQUAL elements - empathy and assurance. The results obtained from this study can be used by the Student Administration departments of all universities to improve their level of service to students by gaining a better understanding of their needs. Quantitative survey research was implemented and 200 structured questionnaires were distributed among students. The results indicated that students' perception about the quality of the service, as well as the overall level of satisfaction of the service in terms of assurance and empathy, are slightly above average, but that considerable improvements can be made on this.

**Keywords:** Service Quality, SERVQUAL, Assurance, Empathy, Tertiary Institutions, Student Administration, Students' Perception

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## 1. Introduction

As in any type of organisation, customers are seen as the lifeblood of the existence of an organisation (Lauer, 2012:1). The same applies to tertiary institutions where the students are the customers which are also regarded as the lifeblood of its existence. All types of customers have certain expectations about any type of service they receive or buy and so do students. Darlaston-Jones, Pike, Cohen, Young, Haunold and Drew, (2003:1-19) indicated that the majority of students today knows exactly what to expect from the Student Administration department and they are also aware of whether they are receiving good services or not. Due to this, students are regarded as a vital and valuable asset to any tertiary institution (Wright & O'Neill, 2002:23-39).

Within tertiary institutions there are various schools, colleges and departments which are all in competition with one another, each aiming to gain more students registered. The moment that students realise that the service quality provided by one school, college or department is higher than another, the likelihood that they will register at that school, college or department is quite high and that might lead to a competitive advantage for the specific school, college or department. Darlaston-Jones *et al.*, (2003:1-19), indicated that students arrive at tertiary institutions with pre-formed perceptions about the school, college or department as well as the service they would like to receive (Tan & Kek, 2004:17-25).

According to Tan and Kek (2004:17-25), the SERVQUAL module is used in order to measure the students' satisfaction towards the quality of the service received in terms of empathy and assurance. The SERVQUAL module is used in order to determine the relationship among the expected service

and the actual service that is received in a particular situation (Tan & Kek, 2004:17-25).

It was found that previous research done on the service quality delivered by tertiary institutions has only focused on higher education in general. Various concepts such as service delivery, student needs, wants and expectations in the administrative departments as well as the possible benefits a faculty could receive when delivering outstanding services, were not covered.

This study has therefore placed the emphasis on the perception of the services delivered by Student Administration departments at a tertiary institution. Consequently, this research study attempts to investigate whether the student's perception about the service quality delivered by Student Administration departments is exceptional in terms of assurance and empathy.

This study aims to assist all tertiary institutions in providing a better type of service through the creation of new and better strategies which will most probably increase student satisfaction. The following research objectives are therefore established:

Objective 1: To identify the students' perceptions in terms of the **assurance** of the service quality provided.

Objective 2: To identify the students' perceptions in terms of the **empathy** of the service quality provided.

The following section gives an overview of service quality, the SERVQUAL elements and students' perception regarding the quality of service experienced at Student Administration departments. The empirical findings and the discussion of the findings appear in the latter part of the paper.

## 2. Service quality

Brochado (2009:174-190) indicated that services can be described as one's actions and performances, as it is a more behavioural activity and less physical. Furthermore, services are also intangible and not always the same in terms of their quality and type (Brochado, 2009:174-190). A service can also be described as being perishable, as it cannot be put away, therefore it is crucial that tertiary institutions ensure that they provide excellent services at all times in order to achieve satisfied students, which will result in spreading positive word of mouth about the administrations department at the institution.

Kattara, Weheba and El-Said (2008:309-323) further indicated that the quality of the service provided is based on the customers' perception of how well a service is being met or whether it exceeds their expectations, which will further contribute to the students' satisfaction level (Fisk, Grove & John, 2004:153). Service quality can also be regarded as the perceived quality by students, due to the fact that it indicates how well a service has been delivered and if it had met the students' expectations (Abdullah, 2006:31-47). Therefore, in order for tertiary institutions to achieve high levels of service quality, it is critical that they need to know their students' perceptions (Narangajavana & Hu, 2008:34-56).

Therefore, for any organisation, especially tertiary institution, to be successful it is critical that they need to provide outstanding quality of services on a continuous basis, in order to assure that their students are satisfied (Abdullah, 2006:31-47).

## 3. SERVQUAL defined

The SERVQUAL model is used to serve as an analytic methodology for disclosing broad areas of a company's weaknesses and strengths in terms of their service quality. According to Parasuraman, Berry and Zeithaml (1991:420-450), the SERVQUAL dimensions and items represents the core evaluation criteria for organisations when measuring the quality of their services, as it is an instrument that is used to measure the perceptions of customers on service quality. These instruments are: tangibility, reliability, responsiveness, assurance and empathy (Parasuraman *et al.*, 1991:420-450).

Jordaan and Prinsloo (2004:65) stated that the SERVQUAL measurement instrument place emphasis on quality as it indicates the difference among customers' expectations about a particular service and their perceptions of the service received. According to Brochado (2009:174-190) the SERVQUAL measurement instrument is the most commonly used scale to measure the quality of services provided. For this research study there will only be focussed on the students' perception of service quality and not on their expectations. The reason for this is the fact that students form their own perceptions of the experienced service and it might be important for tertiary institutions to know exactly what these perceptions of the students are, because this might lead to potential students in the future. Every individual student have specific expectations about a service, however, this is before the actual service takes place. Therefore, the perceptions they have formed after the actual service delivery, is very important.

It is critical for organisations that want to deliver exceptional quality services to place emphasis on the measurement of their services. This can be accomplished by focusing on the SERVQUAL measurement instrument, which includes five dimensions, namely: reliability, responsiveness, empathy, tangibility and assurance (Machado & Diggines, 2012:124). These dimensions are defined as follows:

**Reliability:** Refers to the ability of an organisation to provide the promised service quality reliably and consistently.

**Responsiveness:** Refers to the organisation and its staff's ability to show willingness to assist the customers.

**Empathy:** Refers to the perceived attention and care given by the organisation to the customers to ensure that their needs are met.

**Tangibility:** Refers to the tangible component of a business that has an important impact on the customer and serves as physical indicators of the intended service quality.

**Assurance:** Refers to the customers' perceptions on the ability of the organisation's employees to provide the service with the needed skills, knowledge and communication techniques.

For this research study, the focus will only be on the assurance and empathy dimension. The reason for this is that assurance and empathy are important in the development of the service, and that the assurance dimension is extremely important and the empathy dimension is less important (Parasuraman *et al*., 1991:420-450). Even though assurance is a very important dimension to take into account in services, the overall satisfaction of the service quality delivered can only be established if all five the dimensions were taken into consideration (Jordaan & Prinsloo, 2004:64).

Jordaan and Prinsloo (2004:65) stated that the main purpose for using SERVQUAL to test the quality of the service offered is to firstly determine the level of service the customer will expect from the service provider, and secondly to assess the actual service the customer receive from the specific organisation.

Due to the above, Tan and Kek (2004:17-25) indicated that service quality equals perception minus expectation. Therefore, it can be inferred that service quality can be defined as "… a customer's evaluative judgement about the degree of superiority of service performance", this meaning that service quality is the degree and direction of discrepancy between customers' service perceptions and expectations (Boshoff, 2014:40).

The SERVQUAL measuring instrument is based on the five dimensions of service quality- tangibility, reliability, responsiveness, assurance and empathy. In effect, customers are generally presented with a questionnaire that contains 22 questions that measures expectations and perceptions on the five quality dimensions. However, for the purpose of this study only nine out of the 22 questions will be asked to the students, in order to determine their perceptions in terms of assurance and empathy. The students were asked to answer the questions twice, the first time the students had to answer in terms of the tangible service received from the service provider, and the second time in terms of the level of service the customer expects from the specific service provider. The nine questions associated to assurance and empathy is presented below in Table 1 (Jordaan & Prinsloo, 2004:66).

**Table 1.** Questions in the SERVQUAL measurement instrument

| | |
|---|---|
| | **Assurance** |
| 14 | You can trust the employees. |
| 15 | You feel safe in your transactions with the employees. |
| 16 | The employees are friendly and polite. |
| 17 | The employees have the needed knowledge to answer customer queries. |
| | **Empathy** |
| 18 | The employees give individual attention to each customer. |
| 19 | The employees give personal attention to each customer. |
| 20 | The employees do understand the specific needs of customer. |
| 21 | The employees have the customer's best interests at heart. |
| 22 | The organisation has operating hours that is convenient to all their customers. |

Source: Parasuraman, Zeithaml and Berry (1988:38)

By taking the above elements of SERVQUAL into consideration, the following hypotheses were formulated:

$H_{1(alt)}$: There is a positive correlation between the perceived assurance of the service provided and the overall level of student satisfaction.

$H_{2(alt)}$: There is a positive correlation between the perceived empathy of the service provided and the overall level of student satisfaction.

## 4. Student perception of service quality

According to Brochado (2009:174-190), the awareness of service quality in tertiary institutions has increased over the past ten years. Tan and Kek (2004: 17-25) indicated that the degree in which students' perceptions and expectations are met is described as quality in education and therefore the quality of service are viewed as a gaging factor which describes the satisfaction of the students' perceptions (Abdullah, 2006:31-47). Kara and DeShields (2004:1-24) point out that tertiary institutions that understand the perceptions of their students, will most probably contribute to the overall students' satisfaction.

## 5. Perception defined

According to Oxford Dictionaries (2014), perception can be defined as the "…ability to see, hear, or become aware of something through the senses, as well as the way in which something is regarded, understood, or interpreted." According to Brochado (2009:174-190), perceptions are described as

influential verdicts of the specific services experienced through contact with the administrative personnel in tertiary institutions.

Voss, Gruber and Szmigin (2007:949-959) furthermore stated that the quality of services in tertiary institutions can be pronounced as the variance among a students' expectation of a specific service and their perception of the received service. In tertiary institutions, the students are being regarded as the primary customer, and according to Darlaston-Jones *et al*. (2003:1-19) they are nowadays more aware of their "student rights" which enable them to determine whether their perceptions of a service provided and the reality of that service are in-line.

Voss *et al*. (2007:949-959) therefore stated that it is critical for tertiary institutions to know and understand students' perceptions, as this will enable them to be in an enhanced position in order to handle their perceptions. Students having a positive experience with these administrative departments may result in being more satisfied, which can further result in spreading positive word of mouth, creating loyalty among the current students and attracting potential students, which may ultimately lead to students enrolling for more additional courses.

The next section deals with the research methodology and the findings of the research.

## 6. Methodology

In determining the student's perceptions and their satisfaction with the quality of services provided by Student Administration departments within a tertiary institution, a questionnaire was developed. The questionnaire incorporated questions that are of quantitative nature. The questionnaire was issued to first and third year undergraduate students and a total of 200 usable responses were received.

The demographic profile of the respondent groups is presented in Table 2 and Table 3 below. There were a number of ways to select the respondents, however, the researchers decided to group the respondents into gender and year of study, because students can be grouped according to a variety of sub-groups. Therefore, gender and year of study were the two groups that could easily divide the students. Out of the 200 respondents, 100 respondents were male and 100 were female, as shown in Table 2 below. This was done in order to interpret both genders' opinions. To get a representative sample out of the two years of study, 100 respondents were chosen out of the first year group and 100 respondents were chosen out of the third year group, as shown in Table 3 below.

**Table 2.** Gender

| | | Frequency | Valid Percent |
|---|---|---|---|
| Valid | Male | 100 | 50.0 |
| | Female | 100 | 50.0 |
| | Total | 200 | 100.0 |

**Table 3.** Year of study

| | | Frequency | Valid Percent |
|---|---|---|---|
| Valid | 1st year | 100 | 50.0 |
| | 3rd year | 100 | 50.0 |
| | Total | 200 | 100.0 |

### *a. Reliability*

In order to determine the reliability of the questionnaire, Cronbach's Alpha Coefficient was used. Cronbach's Alpha Coefficient is the most applicable method due to the fact that the questionnaire consists out of 5-point Likert scales.

As indicated in Table 4 below, the Cronbach's Alpha values for both the assurance and the empathy dimension used in the SERVQUAL model are both of acceptable nature.

**Table 4.** Cronbach's Alpha for the SERVQUAL model used (n = 200)

| Dimensions | M | SD |
|---|---|---|
| **Assurance (α = 0.83)** | 3.81 | 0.64 |
| I can trust the staff | 3.74 | 0.79 |
| I am feeling safe when interacting with the staff | 3.87 | 0.75 |
| The staff is friendly and helpful | 3.67 | 0.97 |
| The staff is knowledgeable | 3.94 | 0.79 |
| The staff can answer my questions | 3.83 | 0.86 |
| **Empathy (α = 0.68)** | 3.27 | 0.66 |
| The staff gives individual attention/assistance to each student | 3.42 | 0.90 |
| The staff understands my specific needs | 3.19 | 0.87 |
| The staff has each student's best interests at heart | 3.30 | 0.86 |
| The Student Administration has convenient service hours | 3.16 | 1.05 |

## 7. Results

The outcomes of the questions asked in the questionnaire are examined in terms of descriptive techniques and hypotheses testing.

### *a. Students' perception of the service quality provided by the Student Administration departments*

The students' perception of the overall service quality is above average, with an average of 3.56 on the 5-point Likert scale. Therefore, it suggests that the students' perception of the service quality lies between "neither agree nor disagree" and "agree". One can imply that the average of 3.56 on the 5-point Likert scale falls more towards "agree" instead of "neither agree nor disagree". As a result, the students are on average, satisfied with the perceived service quality.

### *b. The five service quality features relating to the SERVQUAL model*

Table 5 below indicates the importance of the two service quality features (knowledge and politeness, caring and individualised attention) relating to the SERVQUAL model- assurance and empathy. The results suggest that the knowledge and politeness of the staff of the Student Administration department and their ability to convey trust and confidence is the most important feature when it comes to service quality. The caring, individualised attention that the Student Administration department provide to its customers was found to be the least important. Therefore, the Student Administration of the Economic and Management Sciences Faculty should focus their attention to deliver their services by providing more caring and individualised attention to students.

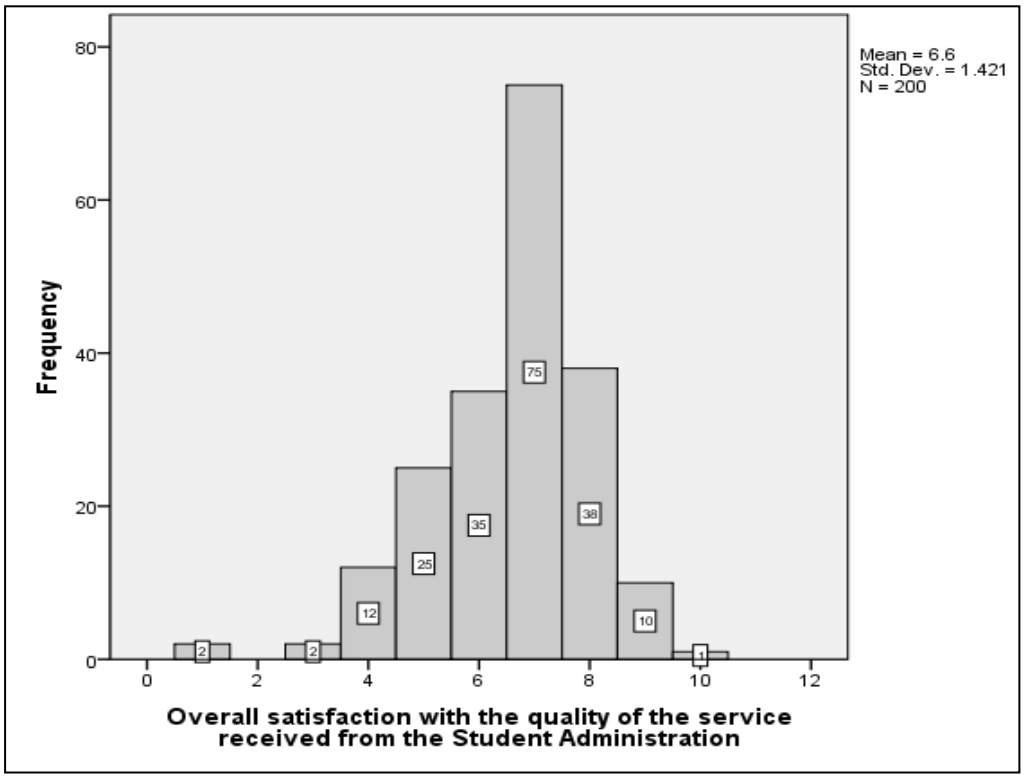
**Table 5.** The perceived service quality features (n = 200)

| Dimension | Features | Sum | Ranking |
|---|---|---|---|
| Assurance | The knowledge and politeness of the staff of the Student Administration and their ability to convey trust and confidence | 539 | 1 |
| Empathy | The caring, individualised attention that the Student Administration provides its customers | 654 | 2 |

### *c. Student's overall satisfaction with the quality of the service received*

The students' overall satisfaction with the service received from the Student Administration department was measured at a mean of 6.60. This suggests that the average leans towards the excellent label (between 6 and 7 on the 10 point semantic scale). Figure 1 below illustrates the percentages of each of the responses from one to ten. The majority of the respondents (75%) represent a scale of seven on the semantic scale from one to ten.

**Figure 1.** Overall student satisfaction



## 8. Hypothesis test

The results for each hypothesis are indicated and discussed below.

### a. Hypothesis 1

The first hypothesis ($H_1$) focused on the relationship between the perceived assurance of the service provided and the students' overall level of satisfaction. The following null and alternative hypotheses ($H_1$) are stated below:

$H_{1(null)}$: There is no correlation between the perceived assurance of the service provided and the overall level of student satisfaction.

$H_{1(alt)}$: There is a positive correlation between the perceived assurance of the service provided and the overall level of student satisfaction.

This one-tailed hypothesis was tested at a 5% level of significance ($\alpha = 0.05$).

Table 6 below describes the descriptive statistics for the students' perception of the assurance of the service provided and their overall level of satisfaction.

**Table 6.** Descriptive statistics for the students' perception of the assurance of the service provided and their overall level of satisfaction

| | N | M | SD |
|---|---|---|---|
| **Overall satisfaction** | 195 | 6.60 (10 point scale) | 1.42 |
| **Total assurance** | 195 | 3.81 (5 point scale) | 0.64 |

The expectation of $H_1$ suggests that there should be a positive correlation between the student's perception of the assurance of the service provided and their overall level of satisfaction. The results above implies that there is in fact a positive correlation due to the fact that the students' overall satisfaction rating (M = 6.60) is above average, leaning towards the "excellent" label, although the ideal would be a higher rating. The total assurance (M = 3.81) suggests that the students' perception about the assurance of the service provided is above average leaning towards the "strongly agree" label, although the ideal would be an average rating of four or five.

The level of measurement used to measure the students' perception of the assurance of the service provided and their overall level of satisfaction was measured at an interval level. The appropriate parametric significant test used is person's product moment correlation.

The histogram and the normal probability plots for both the variables (overall satisfaction and total assurance) showed that they do not have a normal correlation.

The data points in the scatter plots form a cloud and not a cigar shape around the regression line. This indicates that there is a very weak, but positive correlation among the two variables. A positive relationship exists, as the regression line has a definite positive slope, but the relationship is not very strong.

The correlation matrix in Table 7 below shows the correlation of the two variables with each other and with themselves. The table indicates that the p-value is smaller than 0.05 and that the null hypotheses can be rejected and the alternative hypothesis can be accepted. Therefore, it can be concluded that there is a significant correlation between these two variables.

The correlation coefficient indicates that the direction is positive and that the strength (0.47) of the correlation between the two variables is weak according to the "rules of thumb" proposed by Burns and Bush (2006:542).

**Table 7.** Non-parametric correlation for $H_1$

| | | | Overall satisfaction | Total assurance |
|---|---|---|---|---|
| **Spearman's rho** | **Overall satisfaction** | Correlation Coefficient | 1.00 | 0.47 |
| | | Sig. (1-tailed) | . | 0.00 |
| | | N | 195 | 195 |
| | **Total assurance** | Correlation Coefficient | 0.47 | 1.00 |
| | | Sig. (1-tailed) | 0.00 | . |
| | | N | 195 | 195 |

A weak strength positive correlation was found between the two variables (total assurance and overall satisfaction), $r(193) = 0.47$, $p \leq 0.0005$.

### b. Hypothesis 2

The second hypothesis ($H_2$) focused on the relationship between the perceived empathy of the service provided and the students' overall level of satisfaction. The following null and alternative hypotheses ($H_2$) are stated below:

$H_{2(null)}$: There is no correlation between the perceived empathy of the service provided and the overall satisfaction level of service quality received.

$H_{2(alt)}$: There is a positive correlation between the perceived empathy of the service provided and the overall satisfaction level of service quality received

This one-tailed hypothesis was tested at a 5% level of significance ($\alpha = 0.05$).

Table 8 below describes the descriptive statistics for the students' perception of the empathy of the service provided and their overall level of satisfaction.

**Table 8.** Descriptive statistics for the students' perception of the empathy of the service provided and their overall level of satisfaction

| | n | M | SD |
|---|---|---|---|
| **Overall satisfaction** | 195 | 6.60 (10 point scale) | 1.42 |
| **Total empathy** | 195 | 3.27 (5 point scale) | 0.66 |

The expectation of $H_2$ suggests that there should be a positive correlation between the students' perception of the empathy of the service provided and their overall level of satisfaction. The results above implies that there is in fact a positive correlation due to the fact that the students' overall satisfaction rating (M = 6.60) is above average, leaning towards the "excellent" label, although the ideal would be a higher rating. The total empathy (M = 3.27) suggests that the students' perception about the empathy of the service provided is above average leaning towards the "strongly agree" label, although the ideal would be an average rating of four or five.

The level of measurement that was used to measure the students' perception of the empathy of the service provided and their overall level of satisfaction was measured with an interval. The appropriate parametric significant test used is person's product moment correlation.

The histogram and the normal probability plots for both the variables (overall satisfaction and total empathy) showed that they do not have a normal correlation.

The data points in the scatter plots form a cloud and not a cigar shape around the regression line. This indicates that a weak but positive correlation between the two variables exists. The fact that the regression line has a definite positive slope indicates that there is a positive relationship, however, a weak one.

Due to the above discussed results it would be appropriate to use the Spearman's rank order correlation.

The correlation matrix in Table 9 below shows the correlation of the two variables with each other and with themselves. The table indicates that the p-value is smaller than 0.05 and that the null hypotheses can be rejected and the alternative hypotheses can be accepted. Therefore, it can be concluded that there is a significant correlation between these two variables.

The correlation coefficient indicates that the direction is positive and that the strength (0.35) of the correlation between the two variables is very weak according to the "rules of thumb" proposed by Burns and Bush (2006:542).

**Table 9.** Non-parametric correlation for $H_2$

| | | | Overall satisfaction | Total empathy |
|---|---|---|---|---|
| **Spearman's rho** | **Overall satisfaction** | Correlation Coefficient | 1.00 | 0.35 |
| | | Sig. (1-tailed) | . | 0.00 |
| | | N | 195 | 195 |
| | **Total empathy** | Correlation Coefficient | 0.35 | 1.00 |
| | | Sig. (1-tailed) | 0.00 | . |
| | | N | 195 | 195 |

A very weak strength, positive correlation was found between the two variables (total empathy and overall satisfaction), $r(193) = 0.35$, $p \leq 0.0005$.

## 9. Discussion

Student satisfaction towards the quality of the service provided by the Student Administration departments of the higher education institutions was measured in terms of assurance and empathy by using the SERVQUAL model. This was done in order to determine how the students perceive the above mentioned dimensions and to determine the students' overall satisfaction with the service they receive.

## 10. Conclusion

The results indicated that students' perception about the quality of the service, as well as the overall level of satisfaction of the service received is slightly above average. Even though this suggests that the students are not unsatisfied, there is still a lot of room for improvement in order to completely satisfy the students.

According to the students' perceptions, the highest agreed upon dimension in the SERVQUAL model was assurance (M = 3.81). Therefore, one can suggest that the students are the most satisfied with the assurance dimension. In relation to the results

obtained, empathy was the lowest agreed upon (M = 3.26). The statements regarding the empathy dimension have suggested that the students did not agree that the staff understand their needs, gives them individual attention or that they have the students' best interests at heart. Therefore, the Student Administration departments should focus their efforts on improving their empathy towards the students in order to increase the students' overall satisfaction.

The results further indicated that the male students together with the first year students were more satisfied regarding their overall perceptions about the quality of the service received from the Student Administration departments.

It is clear from the study that it is important that students' perception, in terms of service quality, should be understood in order to assure a high level of satisfaction. Therefore, tertiary institutions in South Africa should use the results of the SERVQUAL model to improve on their service offering in the areas where the students are not completely satisfied.

The study further provides strong support for the potential development of an effective service quality model which will aim to assist Student Administration departments in tertiary institutions to increase their overall level of student satisfaction. To conclude, tertiary institutions can benefit from and obtain a competitive advantage above other institutions by having excellent Student Administration departments that focuses on exceptional service quality and high levels of overall student satisfaction.

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# FACTORS INFLUENCING DISCLOSURE PRACTICES IN EMERGING MARKETS: CASE OF THE GULF COUNTRIES

***Nermeen Shehata****

**Abstract**

The paper focuses on one homogeneous group of countries in the Middle East North Africa Region, the Gulf Cooperation Council (GCC) countries, which provides an opportunity to better understand the environment and context, and help shape future research. The purpose of this paper is to provide an analysis of three factors affecting corporate disclosure practices in the GCC countries including: economy, capital markets, and laws and enforcement mechanisms. Several recommendations that would help improve disclosure and financial reporting practices in the GCC are presented. Accounting researchers, especially those with interests in disclosure and financial reporting issues, should take into account the impact of the previous factors while designing their empirical research and reporting its findings.

**Keywords:** Bahrain, Disclosure, Financial reporting, Gulf Cooperation Council, GCC, Kuwait, Oman, Qatar, Saudi Arabia, UAE

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## 1. Introduction

Financial reporting is one of the tools for acquiring information and is an important source of creating investor confidence in a market especially as globalisation of financial markets has occurred extensively since the last decade. During that period and up till now, investors tend to move large sums of money with very high speed all around the world (Saudagaran & Diga, 2003). Normal consequences to the flow of foreign capital into emerging markets are impressive growth in these markets, as well as a boom in their stock markets. Investing in these emerging markets is accompanied with several risks including political, economic, and structural problems. Difficulty in obtaining adequate reliable financial information represents another risk (Saudagaran & Diga, 2003). Investors generally in developing markets use corporate disclosure for their investment decisions (Chau & Gray, 2010) which is required to evaluate investment opportunities and threats in these markets (Saudagaran and Diga, 2003). Accordingly, disclosure and transparency are the key that will help the Middle East and North African (MENA) region recover and attract more investments and capital (Saidi, 2004). Several factors affecting disclosure practices have been identified through the literature, among which capital markets, economy, and laws and enforcement mechanisms within a regulatory framework (Wallace & Gernon, 1991, Radebaugh & Gray, 2006) are addressed in this research.

Countries in the MENA region are generally grouped into three categories based on their performance and economic status according to Sourial (2004) and IFC (2008). The first cateogry includes the early reformer countries which are: Egypt, Jordan, Morocco, and Tunisia. Those countries are characterised by the implementation of economic liberalisation programs that have started since the mid-1980s, a reduction in their budget deficit and inflation, openning up of their economies to foreign investments, privatisation of state-owned enterprises, and liberalisation of their trade. The second category comprises the oil exporters, the GCC six countries: Bahrain, Saudi Arabia, Kuwait, Qatar, Oman, and the United Arab Emirates (UAE). Economies of those countries depend heavily on oil production and exportation. The third category comprises countries that suffer from economic instability mostly due to political reasons including: the West Bank, Gaza, and Iraq, and countries in the early reform stages including: Lebanon, Syria, Algeria, Sudan, Libya, and Yemen.

The focus of this research is the GCC countries due to several reasons. First, they share the same ethnicity (Arabs), the same religion (Islam), the same political regime (Monarchy), and the same culture and tradition (Benbouziane & Benmar, 2010). Second, they are rich countries in terms of oil resources (IFC, 2008) which has lead to being classified by the World Bank (2013) as high income. According to the World Bank (2013), a country is classified as a high income country when the average gross national income

(GNI) exceeds $12,276. Third, their capital markets develop rapidly (IFC, 2008). Fourth, attraction of many expatriates from all over the world due to the internationalisation scheme that has started and the free market policies that have been adoped (Obay, 2009; Al-Ajmi, 2009). Finally, they share unique corporate characteristics including: presence of high ownership concentration which is in most cases royal families and families with political connections (Sourial, 2004), domination of board members by controlling shareholders (Saidi, 2004), domination of politically connected (royal family) members on boards of directors, tightened relations with the West by adopting Western laws such as the International Accounting Standards (IAS) and the International Financial Reporting Standards (IFRS) in the last couple of decades (Al-Qahtani, 2005).

Few research papers have been conducted assessing corporate disclosure in the GCC compared to developed countries and other developing countries in the region, such as Egypt where several studies addressed disclosure level in the Egyptian environment (e.g., Dahawy *et al*., 2002; Samaha *et al*., 2012). Research addressing corporate disclosure in the GCC includes Alsaeed (2006), Hossain and Hammami (2009), Al-Shammari and Al-Sultan (2010) where the average disclosure level was considered low: 33%, 37%, and 19% respectively. However, before calling for more research investigating disclosure practices in the GCC, analysing the factors that might affect those practices would shed light on the GCC environment and help understand its nature. This will guide future research addressing disclosure practices in those countries.

Accordingly, the purpose of this paper is to provide an analysis of the factors affecting corporate disclosure practices in the GCC including the three factors highlighted earlier: economy, capital markets, and laws and enforcement mechanisms within a regulatory framework (Wallace & Gernon, 1991; Radebaugh & Gray, 2006). Accordingly, the paper is organised as follows: the next section discusses the economic conditions; followed by the nature of the capital market; then a discussion on the laws and enforcement mechanisms is provided, and finally a conclusion and further recommendations improving financial reporting practices in the GCC are presented.

## 2. Economic conditions

***2.1 Qatar*:** Qatar is one of the smallest countries in the Gulf with respect to geographical area and population. It gained independence from Great Britain in 1971 (Alattar & Al-Khater, 2007). It has 5% of the world's total gas reserves giving it the second largest gas stocks in the world (Hossain & Hammami, 2009). Qatar enjoys other reserves of natural resources as well as a growing and diversifying economy. This abundance of wealth and resources has led the Qatari government to adopt policies aimed at developing its economic infrastructure and diversifying income sources (Hossain & Hammami, 2009). Therefore, investment opportunities have increased in Qatar especially with respect to exploration projects in the oil and gas sector, where the government has presented many incentives to foreign investors to conduct projects. This has produced a rapidly growing economy (Hossain & Hammami, 2009). As one of the initiatives to increase foreign investment and enhance the economic development, foreign investors could own and trade with 25% of their capital in listed companies (Alattar & Al-Khater, 2007). Moreover, the government developed the Qatar Financial Centre in 2005 with the main purpose of attracting foreign investments in different sectors and to become more integrated into the global economy. These sectors include finance, health, education, transportation, tourism, and energy, all of which leading to a more healthy developing environment (Hossain & Hammami, 2009).

***2.2 Oman:*** Oman's modern economy has started in the mid-70s when oil prices boomed in the international market (MEEPAS, 2010). This was the turning point in Oman's economy, even though it does not enjoy the same oil reserve levels like other GCC countries. Oman has started investing and exporting non-oil products after identifying the fact that their oil reserves are expected to deplete in 2020. Oman has free trade agreements and privatisation programs that encourage growth of its economy (MEEPAS, 2010).

***2.3 Kuwait:*** Kuwait is also one of the small GCC countries, which enjoys a relatively open economy compared to other GCC countries (Al-Shammari & Al-Sultan, 2010). It has 10% of the world's total gas reserves (Al-Shammari & Al-Sultan, 2010). Oil production in Kuwait represents about 50% of its gross domestic product, 80% of the government's income, and 90% of revenues from exports (Al-Shammari & Al-Sultan, 2010). Increased oil production in Kuwait coupled with the increasing process of oil exports has let Kuwait's economy rapidly grow (Al-Shammari & Al-Sultan, 2010). The government has adopted several measures to attract foreign investment including privatisation programs. Accordingly, foreign ownership has been permitted to reach 49% in Kuwait (Al-Shammari & Al-Sultan, 2010). An action plan has been conducted in 2009 jointly between the government of Kuwait and the United Nations Development Program (UNDP) for the years 2009-2013 in which one of its outcomes was to enhance and expand the participation of women in political decision making and economic activities (United Nations, 2009).

***2.4 Saudi Arabia:*** Saudi Arabia is also one of the oil-based economies and has around 25% of the world's total petroleum reserves. It is the largest

exporter of oil in the world, where oil exports represent around 85% of total exports, 75% of government revenue, and 35% of its gross domestic product (Hussainey & Al-Nodel, 2008). Saudi Arabia enjoys a free market system (Al-Razeen & Karbhari, 2004) through increasing foreign direct investment in the country. The huge income rise that occurred in Saudi Arabia from oil exports led to major economic developments in the 1970s. The country established joint stock companies and started issuing regulations for businesses and professionals (Basher & Sadorsky, 2006). The Saudi government has intensified the privatisation of state owned companies since the 1990s (Al-Razeen & Karbhari, 2007). In 2000, the government issued a law allowing foreigners for the first time to invest in their country (Naser & Nuseibeh, 2003). This was for the purpose of developing the Saudi economy to the extent that it would compete internationally (Naser & Nuseibeh, 2003). Accordingly, Saudi Arabia became "the Arab world's top destination for foreign direct investment" (Davids, 2011).

***2.5 UAE*:** The United Arab Emirates (UAE) is a federation of seven emirates (Dubai, Abu Dhabi, Sharjah, Ras Al-Khaimah, Ajman, Fujairah, and Umm Al-Qaiwain) that was established in 1971. It is the second largest GCC country in terms of population and gross domestic product. It has the six largest oil reserves in the world (Obay, 2009). Being rich in oil as its counterparts in the GCC countries (Aljifri, 2008), the UAE attracted many foreigners working in the country, where expatriates reached more than three quarters of the population by the end of 2005 (Obay, 2009). The UAE has an open economy that operates with a philosophy of trade liberalisation, thus adopting a free market economy. Accordingly, the UAE can adopt its own local laws in addition to the international ones (Aljifri & Khasharmeh, 2006; Aljifri & Hussainey, 2007). Finally, the UAE is considered attractive for companies wishing to invest in a growing market in the MENA region due to its liberalisation philosophy (Aljifri, 2008).

***2.6 Bahrain*:** Bahrain has gained its independence in 1971 from Great Britain. Similar to other GCC countries, the Bahraini economy has the following characteristics: the dependence on oil and high dependence on foreign labour (Al-Ajmi, 2009). The boom in oil prices in the 1970s served the current economic growth in the country (Joshi and Wakil, 2004). Petroleum processing and refining is one of the major industries in Bahrain, where the country maintained both offshore and onshore operations (Joshi and Wakil, 2004). Bahrain was one of the earliest GCC countries that opened up its market to foreigners (Joshi *et al*., 2008); non-GCC countries residents have been allowed to own up to 49% (Sourial, 2004). In addition, Bahrain is considered a financial hub in the MENA region (Joshi *et al*., 2008).

Finally, Tables 1 and 2 present the Gross Domestic Product (GDP) per capita income and the Gross National Income (GNI) per capita for the six GCC countries from 2007 to 2011. Table 2 indicates that Qatar had the highest GDP in 2010, whereas Saudi had the lowest GDP. Moreover, the highest GNI was also in Qatar in 2010 as shown in Table 2, while the least was in Bahrain.

**Table 1.** GDP per capita (current '2013' USD)

| Country / Year | 2007 | 2008 | 2009 | 2010 | 2011 |
|---|---|---|---|---|---|
| Bahrain | 19,955 | 20,813 | 16,518 | 18,184 | |
| Kuwait | 46,867 | 57,842 | 40,023 | 45,437 | 62,664 |
| Oman | 16,360 | 22,968 | 17,280 | 20,791 | 25,221 |
| Qatar | 67,516 | 82,389 | 61,075 | 72,398 | 92,501 |
| Saudi | 15,091 | 18,203 | 14,051 | 16,423 | 20,540 |
| UAE | 47,757 | 50,727 | 38,960 | 39,625 | 45,653 |

Source: WDI, the World Bank (2013)[1]

**Table 2.** GNI per capita (current '2013' USD)

| Country / Year | 2007 | 2008 | 2009 | 2010 | 2011 |
|---|---|---|---|---|---|
| Bahrain | 26,550 | 24,700 | 21,230 | 21,200 | |
| Kuwait | 58,310 | 58,180 | 53,470 | 53,720 | |
| Oman | 23,440 | 25,540 | 24,930 | 25,720 | |
| Qatar | 73,180 | 74,220 | 72,150 | 76,330 | 86,440 |
| Saudi | 21,860 | 22,760 | 22,610 | 23,100 | 24,700 |
| UAE | 62,610 | 56,450 | 50,330 | 46,900 | 47,890 |

Source: WDI, the World Bank (2013)[2]

[1] No data was available for Bahrain in 2011, neither for all countries in 2012

[2] No data was available for Bahrain, Kuwait, or Oman in 2011, neither for all countries in 2012

## 3. Capital markets

It has been argued that the existence of capital markets affects the nature, type and availability of information required by investors, having a direct impact on the disclosure levels adopted by companies (Adhikari and Tondkar, 1992; Doupnik and Salter, 1995).

***3.1 Qatar*:** In Qatar, the Qatar Exchange (QE), formerly Doha Securities Market (DSM), is the only principal stock market, in the GCC, that dates back as far as 1995 and works as an independent government entity. Efforts aimed at developing the QE started in 1995, while QE began operating in 1997. The QE plays a major role in the country's economy: it provides fair, efficient, orderly and facilitated trading; thus, it protects both accredited and non-accredited investors, oversees key participants in the market, provides access to public information, encourages timely disclosure of important information, and enforces the securities law (Hossain and Hammami, 2009).

***3.2 Oman:*** The Muscat Securities Market (MSM) of Oman was established in 1988. MSM works as an independent organisation that aims at regulating and controlling the securities market of Oman. The establishment of MSM helped Oman have a successful environment that adds value to the economic cycle (Mohamed *et al*., 2009; Oyelere and Al-Jifri, 2011). In addition, MSM allowed the Omani government to keep pace with the international developments and enhance presence of a solid economy in the country (Mohamed *et al*., 2009; Oyelere and Al-Jifri, 2011). In 1998, the government realised the need to split the regulation and market activities functions carried out by MSM. This was for the purpose of providing enhanced investors' protection through better regulation and control of the market (Mohamed *et al*., 2009; Oyelere and Al-Jifri, 2011). Moreover, this would help the Omani government grow effectively with respect to the development of the local and international securities markets (Mohamed *et al*., 2009; Oyelere and Al-Jifri, 2011). Accordingly, the Capital Market Authority (CMA) of Oman was developed, representing a regulatory governmental authority, thus making MSM's role only concerned with the stock exchange where listed securities are traded through. Omani CMA regulates, oversees and organises the securities issuance and trading, whereas MSM is independent from the CMA but works under its supervision (Mohamed *et al*., 2009; Oyelere and Al-Jifri, 2011). In 2000, several measures were adopted by the CMA for the purpose of improving MSM's performance and strengthening its role in the market. Among those measures are the following: the issuance of new controls on related party transactions and board of directors appointment and the issuance of the corporate governance code for listed companies in 2002 that has been amended and replaced in 2003 (Mohamed *et al*., 2009; Oyelere and Al-Jifri, 2011).

***3.3 Kuwait:*** Kuwait has the oldest, largest, and most developed stock exchange among the GCC countries (Naser *et al*., 2003); it was established in 1983. Kuwait Stock Exchange (KSE) is working on becoming a "World-Class Stock Exchange" offering unique investment opportunities in a fast developing capital market within the industrialising Kuwaiti economy (KSE, 2011). The Kuwaiti Capital Market Authority was established in 2010, for the purpose of enhancing the transparency in the market and overseeing KSE activities. The new regulatory body's bylaws have been issued early in 2011.

***3.4 Saudi Arabia*:** Saudi stock market is considered embryonic (Al-Razeen and Karbhari, 2004) as it was established in 1985 (Al-Razeen and Karbhari, 2007). The capital market is regulated by the Saudi Arabian Monetary Agency (SAMA) that issues rules and regulations that control and supervise the Saudi Stock Exchange (Naser and Nuseibeh, 2003). The Saudi Arabian Capital Market Authority (SACMA) was established in 2003, where it became in charge of controlling the Saudi Stock Exchange instead of SAMA (Hussainey and Al-Nodel, 2008).

***3.5 UAE*:** In the UAE, there are two stock markets: Abu Dhabi Securities Market and Dubai Financial Market, which were inaugurated in 2000 under the supervision of the Emirates Securities and Commodities Authority (SCA). Both markets work on facilitating the fair, efficiently and transparent trading of public companies' securities (Aljifri and Khasharmeh, 2006). Even though the two stock markets are relatively small and new, since 2003, they have became more active, gained strength, thus enlarged in terms of the number of listed companies, market capitalisation, market participants, and initial public offerings (Aljifri, 2008).

***3.6 Bahrain***: Bahrain Stock Exchange (BSE) is considered one of the oldest in the region as it was established in 1987. BSE was one of the first in the Gulf to allow listing of foreign companies in GCC countries' stock exchanges. BSE has the following main objectives: enhancing and developing the country's economy through developing the securities market, protecting investors, overseeing securities' trading organisation and regulations, spreading investment awareness in the society and encouraging savings, and providing the required finances that support economic and social development in the country (BSE, 1987). The Central Bank of Bahrain is the capital market's regulatory body that governs banks as well as listed companies (Al-Ajmi, 2009).

Tables 3 and 4 represent the number of listed companies on each of the countries' stock exchanges and the market capitalisation of each, respectively. The maximum number of domestic listed companies in 2011 was in Kuwait, while the minimum number was in Qatar for the same year as shown in Table 3. Table 4 indicates that the highest market capitalisation of listed companies was in Saudi in 2011, whereas the least was in Bahrain.

**Table 3.** Number of domestic listed companies

| Country / Year | 2007 | 2008 | 2009 | 2010 | 2011 |
|---|---|---|---|---|---|
| Bahrain | 43 | 45 | 49 | 44 | 44 |
| Kuwait | 181 | 202 | 207 | 215 | 206 |
| Oman | 120 | 122 | 120 | 119 | 136 |
| Qatar | 40 | 42 | 48 | 43 | 42 |
| Saudi | 111 | 127 | 135 | 146 | 150 |
| UAE | 90 | 96 | 95 | 101 | 104 |

Source: WDI, the World Bank (2013)

**Table 4.** Market Capitalisation of listed companies (current '2013' USD)

| Country / Year | 2007 | 2008 | 2009 | 2010 | 2011 |
|---|---|---|---|---|---|
| Bahrain | 28 | 21 | 17 | 20 | 17 |
| Kuwait | 188 | 107 | 96 | 120 | 101 |
| Oman | 23 | 15 | 17 | 20 | 20 |
| Qatar | 95 | 76 | 88 | 124 | 125 |
| Saudi | 515 | 246 | 319 | 353 | 339 |
| UAE | 225 | 98 | 110 | 105 | 94 |

Source: WDI, the World Bank (2013) - No data was available for 2012
(Approximated to the nearest billion)

## 4. Laws and enforcement mechanisms

***4.1 Qatar**:* In Qatar, listed companies' financial reporting is governed by Company Law (11/1981 amended 5/2002) and Qatar Exchange (QE), formerly Doha Securities Market (14/1995). The company law comprises general principles of financial reporting, where the content and format of the financial statements are not specified; however, it only requires preparing an annual report, balance sheet, and profit and loss statement (QE, 2002; Shammari, 2005). The company law requires companies to keep proper books of accounts, prepare and submit audited annual financial statements to their shareholders reflecting "true and fair value" of the companies, where no definition of the terms "true and fair value" is provided (Hossain and Hammami, 2009).

Unlike the rapidly growing economy in Qatar, the accounting system has remained in its early stages. The increased number of foreign banks in Qatar that adopt voluntarily the IAS/IFRS has allowed the Central Bank of Qatar to let all banks, investment and financial companies adopt the IAS/IFRS (Al-Qahtani, 2005). In addition, as a condition for listing, companies must have prepared their financial statements for the preceding three years in accordance with IAS/IFRS (QE, 2010). Qatar has established a scientific association for accountants (Hossain and Hammami, 2009). However, no professional bodies are in charge of developing and setting generally accepted accounting standards. Other than banks, unlisted companies are not required to follow specific accounting standards (Alattar and Al-Khater, 2007).

***4.2 Oman**:* Oman Commercial Companies Law (4/1974) and the Capital Market Law (80/1998) are the main governing laws in the Omani stock market. The Companies law requires companies to maintain records of operations and prepare balance sheets and profit and loss statement according to recognised generally accepted accounting principles (Oman Chamber of Commerce and Industry, 1974). However, the law does not specify the type of standards to be adopted. The Central Bank of Oman governs regulations of all banks, where it is mandatory that all banks in Oman are required to adopt the IAS/IFRS (Hussain *et al*., 2002) in addition to all listed companies (Al-Qahtani, 2005). There are no professional financial accounting bodies in Oman; however, there is an Institute of Cost and Management Accountants (ICMA) that was established in 2008.

***4.3 Kuwait***: In Kuwait, listed companies' financial reporting is governed by the Company Law (15/1960) and its amendments, the Stock Exchange Law (1983), and the Ministerial Resolution (18/1990). Similar to Qatar, the Kuwaiti company law requires companies to keep proper books of accounts, prepare and submit audited annual financial statements to their shareholders, comprising balance sheet, and profit and loss statements reflecting "true and fair value" of the

companies, where no definition of the terms "true and fair value" is provided (Al-Shammari 2008; Al-Shammari and Al-Sultan, 2010). Moreover, the law does not identify the accounting standards that companies need to adopt in preparing their statements. However, the Kuwaiti Ministerial Resolution has been issued to improve information disclosure; it requires all Kuwaiti companies to comply with the IFRS starting from the fiscal year 1991 (Naser *et al*., 2003; Al-Qahtani, 2005; Al-Shammari, 2008; Al-Shammari and Al-Sultan, 2010).

The Kuwaiti Stock Exchange (KSE) Law requires listed companies to follow certain accounting regulations issued by the Ministry of Commerce and Industry in order to be listed. If companies are listed and do not follow them, they are subject to delisting or ceasing (Al-Shammari and Al-Sultan, 2010). Companies seeking listing on KSE must publish their audited annual reports of the preceding two years revealing an acceptable financial structure as well as operating profits. However, the board of KSE has the right to impose additional requirements for companies that want to be listed (Al-Shammari and Al-Sultan, 2010).

The only professional accounting body in Kuwait is the Kuwait Accounting and Auditing Association. It was established in 1973. The association can only provide advice and recommendations to the government when requested. Its major role is delivering courses in financial statement analysis and accounting standards. However, it has neither power nor authority to enforce compliance with accounting standards or regulate the profession (Al-Shammari, 2008; Al-Shammari and Al-Sultan, 2010).

***4.4 Saudi Arabia***: Saudi Arabia has three laws that regulate its accounting practices: the Company Law, the Accountancy Law, and the Income Tax and Zakat Law (Naser and Nuseibeh, 2003). The Company Law was issued in 1965; it includes the basic formation details for all companies, such as minimum required capital, registration procedures, and number of partners and directors. The law requires companies to prepare balance sheets, profit and loss accounts, and reports on the companies' operations and financial positions. Listed companies shall apply the Company Law (Naser and Nuseibeh, 2003; Hussainey and Al-Nodel, 2008). The accounting profession was first regulated by the Accountancy Law. It was first issued in 1974 then replaced in 1991 and is currently in effect. The law sets the auditing standards and comprises registration conditions and procedures, and chartered accountant's obligations. The Income Tax and Zakat Law dates back to 1950 and is also in effect. Zakat is a religious tax imposed, based on the Islamic religion, on capital and earnings (Naser and Nuseibeh, 2003).

The first Saudi professional accounting body was established in 1992: the Saudi Organisation for Certified Public Accountants (Alsaeed, 2006). The Saudi Organisation for Certified Public Accountants (SOCPA) aims to promote the accounting and auditing profession and all matters that might lead to the development of the accounting profession and upgrading its status (Al-Razeen and Karbhari, 2004; Al-Qahtani, 2005; Alsaeed, 2006). This means that the accounting profession in Saudi Arabia started to be properly regulated only in the 1990s (Al-Razeen and Karbhari, 2004; Alsaeed, 2006). SOCPA issued an accounting standard that listed companies had to adopt. Issuance of accounting and auditing standards is also the responsibility of SOCPA. Moreover, its role includes public accountants' qualifications (Naser and Nuseibeh, 2003; Alsaeed, 2006).

***4.5 UAE***: The UAE has three regulatory bodies issuing three sets of legislations for its financial reporting: the Ministry of Economy and Planning, the Central Bank, and Emirates Securities and Commodities Authority (Aljifri and Hussainey, 2007; Hassan, 2009). First, the UAE Commercial Companies Law (8/1984) issued by the Ministry of Economy and Planning governs listed companies' - other than banks- preparation of financial reports (Hassan, 2009). Listed companies are required to prepare balance sheets, income statements, cash flow statements, statements of changes in equity, and the notes to accounts (Aljifri and Hussainey, 2007). All companies operating in the UAE have to keep records of their operations and prepare "true and fair" financial statements to be presented to the state and federal authorities (Aljifri and Khasharmeh, 2006). Second, the Central Bank governs banks and financial institutions' regulations and requires them to adopt the IFRS (Aljifri and Khasharmeh, 2006; Hassan, 2009); however, non-financial institutions are not obliged to adopt them (Aljifri, 2008). Third, the Emirates Securities and Commodities Authority developed the corporate governance code in 2007 that was amended and replaced by the new code in 2009 (Hassan, 2009).

In the UAE, the Accountants and Auditors Association (AAA) is the official body representing the accounting profession in the country (Aljifri and Hussainey, 2007; Aljifri, 2008). It was established to develop international best accounting practices in the country (Aljifri and Khasharmeh, 2006); thus, it recommends adopting the IAS/IFRS (Hassan, 2009). Moreover, the UAE established the Institute of Internal Auditors that spreads the importance of corporate governance through publishing newsletters and organising conferences and seminars (Hassan, 2009). Hassan (2009) argues that the big international auditing firms have dominated the accounting profession in the UAE.

***4.6 Bahrain***: In Bahrain, the Commercial Companies Law of 1975 was amended in 1980 and in 2001. It requires limited liability companies to prepare balance sheets, income statements, cash flow statements, and statements of retained earnings (Al-Qahtani, 2005; Al-Ajmi, 2009). However, similar to other GCC countries, the act does not specify certain accounting standards to be followed (Joshi and Wakil, 2004; Joshi *et al*., 2008). The Central Bank of Bahrain governs banks and listed companies (Al-Ajmi, 2009). In 2001, it became mandatory for listed companies to comply with the IFRS (Joshi *et al*., 2008; Al-Ajmi, 2009).

Bahrain Accountants Association was established in 1972. Its role was only to conduct seminars; however, currently its role includes providing recommendations and comments to other regulatory institutions in Bahrain as well. In addition, it provides seminars, public lectures and trainings that aim to improve the profession. However, the association does not have any power or authority to enforce any requirements related to the profession (Joshi and Wakil, 2004; Al-Ajmi, 2009).

## 5. Conclusion

This paper analysed the possible factors affecting disclosure practices in the GCC including economic conditions, nature of capital markets, and laws and enforcement mechanisms. Future research addressing disclosure practices should take into account the nature and uniqueness of the GCC environment. Policy makers and regulators should enforce laws and regulations that can lead to higher levels of disclosure practices that would affect investment opportunities in return; thus, help recovering and attracting more investments and capital in the GCC. This can be achieved through continuous training and education of preparers of the annual reports to disclose information that can help investors take their decisions. Also, severe punishments must be applied on violators if laws are to be issued. Furthermore, efforts must be exerted by the capital market authorities in the GCC to spread the awareness and importance of disclosure practices to the companies as well as to the whole region. Also, international developments on improving transparency and disclosure of corporate financial reporting as well as the role of transparent financial reporting in attracting both strategic and portfolio foreign investments could also be presented.

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# CONSUMER INDEBTEDNESS OF PUBLIC SERVANTS IN SOUTH AFRICA: EVIDENCE FROM THE DEPARTMENT OF HEALTH IN THE NORTH WEST PROVINCE

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**Abstract**

The primary objective of this study was to determine the consumer debt level of public servants in the Department of Health in the North West Province, South Africa. The results of the study indicate that most public servants rely almost entirely on the public service remuneration to survive and for debt repayment. The results of the survey also indicate that 96% of public servants in the Department of Health in the North West Province are over-indebted. The respondents also perceived their income to be insufficient and thus resort to credit to maintain their required standard of living. The results also indicate that 63% of the respondents have a debt-income ratio above 20%. The reason for falling into debt is mostly due to lack of funds and insufficient income. The most common types of consumer debt found among the respondents included store cards (26%), followed by personal debt from banks (18%), while vehicle loan debt (37%) consumed the highest rand value of total debt among respondents. Personal loans from banks (21%) comprised the second highest debt value incurred by the respondents. It could be argued therefore that most public servants are over-indebted and could be trapped in a debt cycle if no additional income is provided or if they do not embark on some kind of personal financial management education.

**Keywords:** South Africa, Consumer Indebtedness, Public Servants

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## 1. Introduction

Since the first democratic elections in South Africa in 1994 there has been an increase in the ability of a larger proportion of South Africans to access credit facilities (Núñez and De Wet, 2008). Overall, the growth in credit consumption has exceeded growth in income, leading to an increase in household debt (Hurwitz and Luiz, 2007). Consumer spending has also been largely fuelled by consumer credit, leading to, in some instances high levels of indebtedness (Mlandu, 2007). In the quarterly bulletin released in December 2012, the South African Reserve Bank indicated that household debt has been declining from the all time high of 82% registered in 2008 but was still high - above 76%. The report further indicated that consumer credit accounted for roughly 35% of aggregate household debt in 2009.

Despite the introduction of the National Credit Act of 2006, reports have shown that consumer indebtedness is still very high. The Credit Bureau Monitor report of the National Credit Regulator (NCR, 2010) showed that in the fourth quarter of the year, 47% of the 19 million credit-active consumers in South Africa had impaired credit records. The report further indicated that for every R100.00 a household earns, R78.50 goes towards servicing debts. The South African Reserve Bank Quarterly Bulletin (2010) revealed that household debt has been decreasing since 2008 but was still high at 77.6%. The Reserve Bank Quarterly Bulletin (2010) also indicated that consumer credit accounts for roughly 35% of the aggregate household debt in South Africa.

The consumer National Credit Regulator (2011) has revealed that the total outstanding gross debtors' book of consumer credit for the quarter ending March 2011 was R1.21 trillion and that the number of accounts increased marginally from R35.05 million to R35.24 million during the same period. The report also indicated that credit facilities, which mainly consist of credit cards, store cards and bank overdrafts, have increased from R10.25 billion to R10.43 billion in 2011. This is a clear indication that consumer debt in South Africa is very high. The National Credit Regulator (NCR, 2012) also indicated a rise in credit usage where the number of credit agreements entered into for the quarter ending December 2012 increased by 18.52%.

High consumer debt levels are not unique to South African consumers, but affect consumers all over the world. The financial systems of the 21st century have been growing with speed, sophistication and becoming more complex through the world (Nyamute and Maina, 2011:2). The financial and social environment within which people make financial decisions is constantly changing given the dynamics and ever improving technology. Financial products and services have multiplied along with technological and other means of marketing (Greenspan, 2005). This necessitates the need for a consumer to keep up with these changes so as to manage their assets accordingly.

The global financial crisis has highlighted the extent of household and consumer debt and its effect on all parts of the community in achieving a good standard of living and quality of life (Von Normann and Reinhart-Maack, 2012). Most studies indicate that household debt is high and has been increasing worldwide (Opinion Research Corporation Macro, 2001). The Reserve Bank of Australia noted an upward drift in the maximum permissible debt servicing ratio of 50% of gross income (Griffiths, 2007). In Sweden, the aggregate household indebtedness was reported to be slightly over 70% of GDP (Persson, 2008). According to Bird, Hagstrom and Wild (1999), the growth of credit card debt in the United States (US)has been mostly high among households who live below the World Bank poverty line of $1.00 per day. However, it has also been pointed out that rising indebtedness has had an adverse effect on households by increasing the number of household bankruptcies, which reveals that the number of non-business bankruptcies in the US increased from about 300 000 in 1985 to an all-time high of 1.35 million in 2001, according the data from the US Courts. This increase has far outstripped the growth in population (Dutt, 2003).

Most studies (Akhaabi, 2010; Hurwitz and Luiz, 2007; Mlandu, 2005; Worthington, 2006) have shown that debt has become an integral part of everyday life. Today there are very few goods or services that cannot be bought on credit terms or retailers who do not cater for credit facilities (Finlay, 2009). Towards the end of the 2000s, the American public had a combined personal debt of more than $2.5 trillion, mainly in the form of credit cards, personal loans and hire-purchase agreements (Federal Reserve Board 2008 in Finlay, 2009). The Australians have also reported some uneasiness about the growth in household debt. From December 1992 to December 2002, the ratio of total household debt to income rose from a level that was relatively low at 56% to 125% – a level that is in the upper range for comparable economies (Worthington, 2006). This represents an average annual growth rate of 13.9% over the decade and 14.7% over the past five years. The credit card debt to income ratio in Australia grew by 17.4% over the decade and 20.9% over the past five years (Worthington, 2006). A study conducted by Duasa (2008) in Malaysia found that almost 70% of government servants spent up to 79% of their income on debt, while 4.5% of government servants spent more than 100% of their income on debt. In Thailand, 84.1% of all civil servants in 2010 were indebted compared to 81.6% in 2006 (The Nation, 2010).

The rationale for investigating consumer indebtedness of public servants in South Africa stems from the fact that the majority of employees are employed in the public sector. Public servants are viewed as generally having more job security than their private counterparts (Public Service Commission, 2007). Due to their high job security, civil servants are usually eligible for taking personal loans, credit cards and other forms of credit and are thus subject to incurring debt (Public Service Commission, 2007). Credit providers often target civil servants because they are viewed as being in a position to service their debts based on their job security. According to the Public Service Commission report (2007) on the indebtedness of public servants in South Africa, public servant debt amounted to R13.3 million during the 2006/2007 financial year. Of this amount R3.3 million (25%) is attributed to employees based in the national departments, while the balance of R10 million (75%) is attributed to micro-lending debt of public servants based in provincial departments. The report further states that during the period 2006/2007 there were 216 857 public servants who made garnishee-related payments (emolument attachment order) through the PERSAL system. This constitutes 20% of the total population of the public service. The high level of consumer debt among public servants prompted the national treasury to tighten lending regulations and abolish garnishee orders (Steyn, 2013).

The main objective of this study is to determine the state of consumer debt of public servants in South Africa with special focus on public servants employed in the Department of Health in the North West Province. The reason for focusing on the North West is that it is the province with the lowest level of indebtedness (39%) as compared to the other provinces in South Africa with the highest level of indebtedness in the Western Cape (97%) (Daniels, 2001). The fourth quarter report of the National Credit Regulator (2011) also categorises North West as the province with the third lowest debt levels after the Northern Cape and Limpopo. Statistics SA (2004) indicated that the North West Province comprises 6.9% of the country's formal employment opportunities, and 7.7% of the country's informal employment opportunities, which might be linked to the low levels of indebtedness. Ardington et al. (2004) and Daniels (2001) found that poor households had low levels of indebtedness, which could perhaps be partly explained by a lack of access to financial instruments in the formal banking sector, corroborated by low levels of collateral among the poor.

The annual report of the North West Department of Health (NWDoH, 2010/11) reported that the estimated cost for the sick leave taken by the employees for the 2010/11 financial year was R 53 867 232.19 and that the average number of sick leave days per employee for the year was eight days. The annual report also indicated that the most prevalent types of misconduct cases in the North West Department of Health were fraud, gross negligence, gross absenteeism, theft and abscondment. The literature explicitly associates these types of misconduct cases with consumer indebtedness (Garman, Leech and Grable, 1996). This negative effect of being indebted is further discussed by Garman et al., (1996) who argue that poor financial behaviour could result in extremely high costs being incurred by employers, which include absenteeism, tardiness, fighting with co-workers and supervisors, job stress and reduced employee productivity. The current study seeks to add knowledge to the existing literature based on studies conducted by Mashigo (2006), the Public Service Commission (2007) and Nyaruwata and Leibbrandt (2009). The remainder of this paper is structured as follows: Firstly, a literature study presents the theoretical foundation of the study related to consumer debt. Secondly, the sample, variables and methodology employed are outlined. Thirdly, the analysis is carried out, and lastly the results of the analysis and the recommendations are outlined.

## 2. Literature review

### *2.1 Classification of consumer debt*

The literature examines household debt portfolios according to the type of credit incurred. The two major components of household sector debt are customarily classified into household credit and mortgage advances (South African Reserve Bank, 2010). Household or consumer credit is, in turn, subdivided into open accounts, personal loans at banks, other personal loans, credit card facilities, instalment sale transactions and lease agreements (Prinsloo, 2002). Nyaruwata and Leibbrandt (2009), on the other hand, categorise consumer debt into personal loans from banks, personal loans from micro-lenders, loan sharks (commonly known as mashonisa in South Africa), study loans from banks, study loans from academic institutions, loans from friends and family members, car finance, credit cards, store cards, and hire purchase (see also Finlay, 2009). Núñez et al. (2008) contend that the most common sources of loans to households in South Africa are formal sources such as the banks. The number of credit accounts however indicates a different picture. The National Credit Regulator examined the number of accounts issued by credit providers. Figure 1 below indicates the number of accounts per classification.

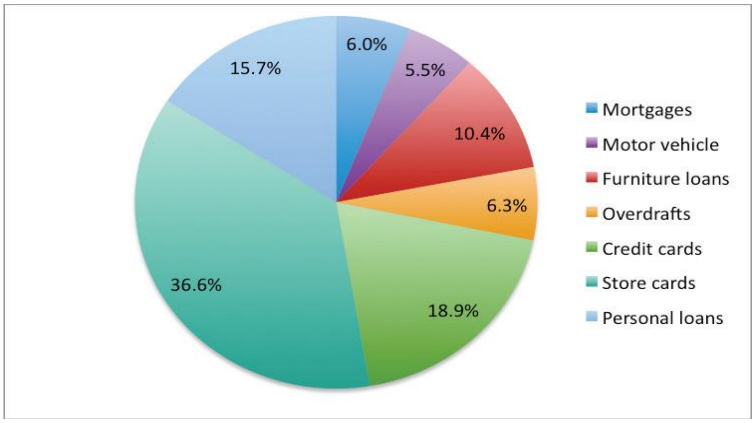


**Figure 1.** Number of accounts (as a percentage of the total)
Source: National Credit Regulator (2009)

Figure 1 above indicates that the majority of consumers (36.6%) use store cards as a method of payment. Although mortgage (6.0%) and motor vehicle debt (5.5%) are by far the biggest contributors in terms of value to household debt, few consumers have access to those types of credit.

### *2.2 Measuring consumer debt*

There are various methods used to measure consumer debt. These measures are usually calculated as a ratio comparing the amount of consumer debt with the consumer's ability to repay (i.e. household income or assets). The most commonly used measures of ability to repay are disposable income, which is the after-tax spendable income (Garner, 1996). The measures of consumer debt can be classified into the following three general models of consumer indebtedness (Opinion Research Corporation, 2001)

#### *2.2.1 The administrative model*

This method examines all cases where non-payment of debts have been registered officially or declared before a court. Raijas, Lehtinen, and Leskinen (2010) contend that payment default of a consumer's credit

debt is the first public sign for creditors that the debtor has financial difficulties. It is regarded as a very important signal of the consumer's inability to repay a loan. Analysts sometimes look at more direct measures of household financial distress, such as delinquency rates or the number of personal bankruptcies (Greninger, Hampton, Kitt and Achacoso, 1996). The national credit regulator has been using this method to measure the consumer credit default rate.

### 2.2.2 The subjective model

In this model a consumer is asked a critical question to indicate whether they are coping with the payment of their debts (Raijas et al., 2010). This method was used by the Euro-Barometer survey (Raijas et al., 2010, citing the European Commission (EC), 2008) to measure the level of over-indebtedness across all European Union (EU) member states. Hurwitz and Luiz (2007) and Statistics South Africa (2008) also used the same method to measure consumer indebtedness. The weakness with the subjective model of measuring consumer indebtedness is that consumers might not be aware that they are on the verge of being indebted or already over-indebted and that the researcher has to rely on the response provided.

### 2.2.3 The objective (or quantitative) model

The objective or quantitative measure of consumer indebtedness is the most commonly used model. This method captures the net indebtedness or the debt service burden of households (e.g. debt-to-assets or debt-to-income ratio) and then establishes threshold levels of the ratios that are regarded as abnormally high, putting consumers in danger of becoming over-indebted. The debt–income ratio can be measured using outstanding debt or current monthly debt service payments (Hyounjin Yi, 2010).

Greninger et al. (1996) used this model to measure non-mortgage debt payments against after-tax income, which indicates a danger point when the ratio is above 20% of total debt payments to after-tax income. Zhao (2003) used the debt repayment to income after-tax ratio to gauge household debt status also using a threshold of 20% to indicate over-indebtedness, while Jacobs and Smit (2010) used debt repayments in excess of the accepted level of 30% of gross monthly income. The Micro Finance Regulatory Council of South Africa (MFRC) identifies clients as over-indebted if they are using a loan to pay off other loans or if they are allocating more than 25% of their gross monthly income or 50% of the net monthly income to loan repayment (Núñez et al., 2008). Other studies such as Nyaruwata and Leibbrandt (2009) have used both the outstanding debt and monthly repayment to measure the level of consumer indebtedness. The current study thus focused on the monthly payment rather than the outstanding debt to determine the consumer debt level among public servants.

## 2.3 Variables used to measure consumer over-indebtedness

### 2.3.1 Consumer debt and demographic variables

Various studies have examined the relation between consumer debt and demographic variables. The most common demographic variables used in most studies are age, gender, marital status, educational level and number of family members (Lea, Webley and Walker, 1995). The following demographic variables were used in this study:

### 2.3.2 Age and consumer debt

Consumer debt is the typical humped shape implied by the simple life-cycle hypothesis: debt increases among younger age groups, peaks at middle age and then tapers off among older age groups (Jiang, 2007). This theory is supported by the Public Service Commission (2007) findings as indicated in Figure 2 below:

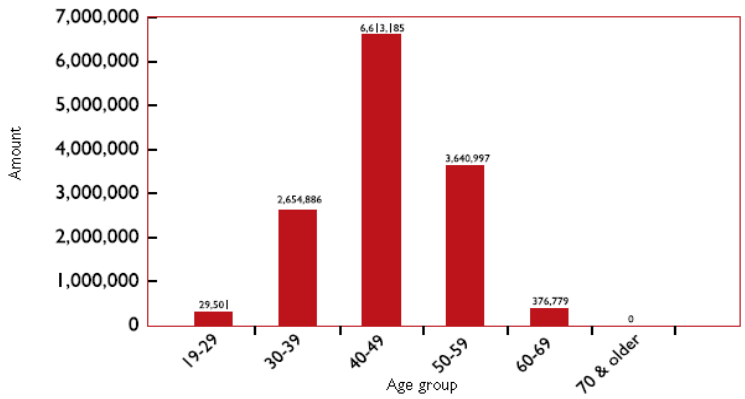


**Figure 2.** Amounts paid to micro-lenders during the 2006/2007 financial year according to age group
Source: Adapted from Public Service Commission (2007)

Figure 2 show that employees in the age groups 40–49 and 50–59 paid the highest amounts to micro-lenders during the 2006/2007 financial year. This could imply that middle-aged consumers are highly indebted as compared to other groups. This is in spite of the life-cycle hypothesis according to which younger families are more likely to be in debt than older families (Curtis, 1962; Livingstone and Lunt, 1992; Van der Walt and Prinsloo, 1995). This is in line with Jiang's research (2007), who has found as older households do not necessarily have a large income after retirement, they usually rely on their savings/wealth accumulated over time and are therefore less likely to borrow large amounts. Younger borrowers will more likely be short-term borrowers and consumption-oriented, while older consumers would be slightly more inclined to use credit for purposes that may improve income-generation opportunities, such as education, or to buy an asset (Hurwitz and Luiz, 2007).

Interestingly, the study by Parker and Chatterjee (2009) compared consumer susceptibility between consumers in the US and Singapore, and found that for consumers in Singapore, credit susceptibility increases with age while in the US, younger consumers are more prone to credit use. The contrasting findings reported by different studies make it difficult to come to a conclusion, but the life-cycle hypothesis makes sense as some debt incurred by the middle-aged is related to taking care of the children.

### 2.3.3 Gender

Women tend to be more risk-averse when making financial decisions while men are more likely to handle their finances aggressively (Prince, 1993). In this respect, an interesting result comes from a qualitative study by Thorne (2010) where it was found that married women play the main part in handling financial affairs when the household's debt situation becomes severe, while their husbands tend to be irresponsible or reluctant. However, Thorne's findings were based on 19 interviews only. More caution and a higher sense of responsibility in women when dealing with household finances and debt is reflected by higher debt burdens of men compared to women (Keese, 2012; Lea et al., 1995).

Erasmus and Lebani (2008) indicated that women are likely to own more store cards than men. This confirms the findings of a UK study (Portrait Report, 2004) where it was reported that women will more likely own store cards while men mostly use bank credit cards. Contrary to other studies, Jacobs and Smit (2010) and Ardington et al. (2004) argue that men tend to have higher levels of indebtedness than women. This is supported by Daniels (2001) who contends that male-headed households are at least twice as indebted as female-headed households. The Public Service Commission (2007) indicated that 53% of public servants who make payments to micro-lenders through the PERSAL system are men, while 47% are women.

### 2.3.4 Education and consumer debt

Highly educated consumers are likely to have more debt than less educated consumers. This is supported by Curtis (1962) who asserts that advanced education means more familiarity with the advantages of credit, increases in the appetite for material and nonmaterial goods, and improves the chances of being granted a loan. Consumers with higher education levels are more deeply indebted due to income differences driving greater access to credit (Hurwitz and Luiz, 2007). On the other hand, other studies contend that highly educated consumers have low consumer debt. Education has a positive influence on financial literacy, thus the ability to manage debt (Keese, 2012). Consumers with college or university degrees could be more knowledgeable about money management and more cautious about the appropriateness of their debt position (Jiang, 2007).

Educated consumers are better informed about the credit conditions and this could reduce the risk of facing over-indebtedness. In addition, less literate households use higher cost credit lines disproportionately, have higher debt–payments ratios to given levels of debt and have higher arrears (Disney and Gathergood, 2011). On the other hand, the debt and education level relationship may not appear to be strictly linear. That is, the highly educated group may not necessarily have a lower debt burden than the intermediately educated (Jiang, 2007). Contrary to other reports, Livingstone and Lunt (1992) have found no positive relation between personal debt and level of education. Households headed by someone with a post-school qualification or professional degree are in a similar debt burden position as households headed by someone with or without a high school qualification, everything else being constant (Zhao, 2003).

### 2.3.5 Income and consumer debt

Consumer indebtedness increases as income increases (Daniel, 2001). It is assumed that an increase in income will result in an increase in credit access (Jacobs and Smit, 2010). Higher-income consumers have access to "big ticket" items such as vehicle finance, and so their total outstanding debt forms a higher proportion of their annual income than low-income consumers who emerge as typically indebted to around 10 to 15% of their annual income (Hurwitz and Luis, 2007). Zhao (2003) argues that households with steady and affluent incomes are perceived as less risky borrowers and they are more likely to be granted the full amount of loan while low-income households may not be granted large loans and hence they have less debt. Daniels (2001) argues that the lower levels

of debt among lower-income groups could partly be explained by the lack of access to financial instruments in the formal banking sector.

However, Keese (2012) argues that higher-income households have low debt levels. Debtors are more likely to be in low-income groups than in higher-income groups (Lea et al., 1995). This was confirmed by the Human Sciences Research Council (2003), which indicated that debt levels were rising faster in the lower-income categories than in the higher ones (Jacobs and Smith, 2010). Credit card debt and non-bank debt such as store cards are still the most common forms of debt found among low-income households (Barba and Pivetti, 2009). Lack of access to formal financial services by poor households makes them look for alternative sources of finance and they heavily depend on their local, informal moneylenders who are regarded as responsive to their financial needs (Mashigo, 2006).

The increases in consumer debt provide consumers, especially poor ones, with a safety net which allows them to keep up their spending when their income falls (Bird et al., 1999). In some instances, low-income consumers' borrowing may be the only way of covering essential living expenses when, for example, a washing machine breaks, a child falls ill or the rent needs to be paid (Autio et al., 2009). Furthermore, high-income consumers generally have low emolument (garnishee) attachment orders. This is supported by the University of Pretoria Law Clinic (2008), which found that the percentage of employees attached through emolument orders generally decreases as income increases.

Several studies have found that middle-income consumers are more hard-hit by consumer debt than any other income group. This is supported by Scott and Pressman (2011) who assert that many middle-class households rely on consumer credit, such as credit cards and motor vehicle loans, to maintain their standard of living. Their income cannot meet the desired standard of living and hence they resort to credit. The Public Service Commission report (2007) supports this view and has reported that in 2007 there were more middle-income public servants who paid micro-lenders through the PERSAL system than any other group in the public service. Livingstone and Lunt (1992) could however not establish whether higher income was seen to result in increased borrowing as consumers in debt did not differ in the amount of disposable income from those not in debt. The report released by Statistics SA (2012) on the number of civil summonses for debt outstanding to credit providers reflects no difference in consumers' income level.

## 3. Research design, data collection and research methodology

The study used a descriptive quantitative survey research method. It quantified the amount of money spend by respondents in servicing debt, which determined the level of debt of the respondents. The population of the study consisted of all the public servants employed by the department of health in the North West province. There were 423 employees registered on the PERSAL system of the provincial health department employees (PERSAL system: October 2011). The employees on the payroll consisted of 31 senior managers, 68 middle managers, 219 technical or professional employees and 105 lower-level employees. The study used a non-probability quota sampling method to ensure that the sample would cover all the categories of employees in the provincial office. The sample size of 212 employees consisted of 15 senior managers, 34 middle managers, 110 professional employees and 53 lower-level employees.

Data was collected through a self-administrated anonymous questionnaire. The questionnaire was submitted to the offices of the sampled population as they were in one specified building. The office number was used to follow up on the submission of the questionnaire. The participants were requested to respond within a specified period and return the completed questionnaire by placing it in a sealed box. This was done to promote honesty in their responses as the researcher was not able to link the completed questionnaire to any individual. By promoting honesty in completing the questionnaire it was hoped that this would increase accuracy and reliability of the data collected. Data on garnishee orders was collected through the PERSAL system.

## 4. Analysis and interpretation of the results

### *4.2 Demographic information*

Data was analysed by making use of the Statistical Programme for Social Sciences (SPSS), version 14.0.

The demographic profile was based on the descriptive statistics derived from the survey. The majority ofrespon dents who participated in the study were women (93), i.e. 66.9% of the sample, while 46 (33.1%) were men. This is in line with the population of the study which has a gender profile of 284 women and 185 men (PERSAL, 2012). The majority of respondents were between the age of 26 and 30 years and made up 32% of the sample, followed by the age group 31 to 35 years, and 41 to 45 years making up 25% of the sample. Only 6.5% of the participants were 25 years old or younger. The majority (82%) of respondents had at least a tertiary qualification ranging from a diploma (49 participants or 35%), undergraduate degree 3 (22%), post-graduate degree 22 (16%), master's degree 11 (8%) and PhD 2 (1.4%).

### *4.3 Personal income*

The study population comprised the permanently employed public servants working at the provincial

office of the North West department of health. Thus all the respondents had a monthly income in the form of remuneration for the service they provide on behalf of the department of health. Table 1 below indicates the income per salary level. The majority of respondents (39%) were at salary levels 6 to 8, while salary level 13 and above had the smallest percentage of respondents (6.5%). Level 5 and below had the second-highest percentage (29%) of respondents in the survey. Table 1 also indicates that the majority of the public servants working for the provincial office were at level 6 to 8, while senior managers who were at level 13 and above made out the lowest number of the population (6.5%).

**Table 1.** Classification of respondents per income

| | Frequency | Percentage | Cumulative percentage |
|---|---|---|---|
| Level 5 and below | 40 | 28.8 | 28.8 |
| Level 6–8 | 54 | 38.8 | 67.6 |
| Level 9–12 | 36 | 25.9 | 93.5 |
| Level 13 and above | 9 | 6.5 | 100.0 |
| Total | 139 | 100.0 | |

The study assumed that the monthly income determines consumer spending patterns as shown by Statistics South Africa (2008). The respondents' income variable was divided into five categories as shown in Table 2 below. The majority of respondents (40%) earned an after-tax monthly income of between R5 000 and R10 000, while surprisingly nine respondents (6.5%) earned between R15 000 and R20 000. The reason behind the low number of respondents in this category was unclear as the majority of employees within the provincial office ranged between salary level 6 and 12, which included employees earning below R20 000. The group of respondents earning between R10 000 and R15 000 was the second highest at 28%. This suggests that the majority of respondents in the study were in the middle-income group of the public service.

**Table 2.** Classification of respondents per monthly remuneration

| After-tax monthly income | Frequency | Per cent | Cumulative percentage |
|---|---|---|---|
| Less than R5 000 | 17 | 12.2 | 12.2 |
| R5 001–R10 000 | 56 | 40.3 | 52.5 |
| R10 001–R15 000 | 39 | 28.1 | 80.6 |
| R15 001–R20 000 | 9 | 6.5 | 87.1 |
| Above R20 000 | 18 | 12.9 | 100.0 |
| Total | 139 | 100.0 | |

The respondents were not required to disclose their exact income but had to indicate into which category they fell. This was done to promote honesty and increase the response rate as personal income is regarded as a personal matter. In order to determine the after-tax monthly income in the study, a median of each income level category was determined (see Table 3 below). In this case, the median for those earning less than R5 000 was taken as R3 500, which was used to measure income for this variable. The median income was then multiplied by the number of respondents in each category to determine the total after-tax monthly income for that category. As shown in Table 3, the total after-tax monthly income for respondents falling into the category R5 001 to R10 000 was R420 000. The total monthly income for each category was then added up to determine the grand total for the after-tax monthly income of the respondents, which was R1 574 500. This represented the total income of the respondents.

**Table 3.** Total after-tax monthly income from public service

| After-tax monthly income categories | Frequency | Average income per category | Total after-tax monthly income per category |
|---|---|---|---|
| Below R5 000 | 17 | R3 500.00 | R59 500.00 |
| R5 001–R10 000 | 56 | R7 500.00 | R420 000.00 |
| R10 001–R15 000 | 39 | R12 500.00 | R487 500.00 |
| R15 001–R20 000 | 9 | R17 500.00 | R157 500.00 |
| Above R20 000 | 18 | R25 000.00 | R450 000.00 |
| Total | 139 | | R1 574 500.00 |

Table 3 indicates that the highest total for after-tax monthly income was recorded by respondents earning an income between R10 001 to R15 000. The reason behind this high value was that 28% of

respondents fell into this category. This is in line with the findings of the Public Service Commission (2007), which indicated that public servants on salary levels 6 to 8 pay the highest amount to micro-lenders. The second-highest was the income level above R20 000. This was the highest-income respondent who thus heavily influenced the total income of the category. The respondents earning below R5 000 contributed the least value of after-tax monthly income. In addition to their monthly remuneration from the public service, employees sometimes earned income from sources outside the public service. Ten (7%) out of the 139 respondents indicated that they earned income outside their public service remuneration.

The highest after-tax monthly income from other sources was R15 000 while the lowest was R400. A total amount of R45 900 was earned by the respondents from sources other than the public service. The majority of the respondents (50%) mentioned business as their source of income, while the sources of income for the other respondents ranged from maintenance, spouse support to investment. Two respondents did not indicate their sources of income. Four of the five respondents earned an income above R20 000 from the public service while no respondents earning less than R5 000 had an income from outside the public service.

### 4.4 Information on consumer debt

It should be noted that data was collected in November 2012. This therefore implies that the last month of payment which was used in this study was October 2012. October 2012 was therefore used interchangeably with monthly debt payment as the questionnaire indicates "last month debt payment". This was done in order to relate the analysis of the study with what the questionnaire reflected.

The respondents were asked whether they paid debt obligations every month and five (4%) respondents indicated that they did not pay monthly instalments to service debt, while 134 (96%) respondents indicated that they serviced debt monthly. This suggests that the majority of respondents were in debt (96%). The South African Reserve Bank (2002) defines debt as an obligation or liability arising from borrowing money or taking goods or services "on credit", i.e. against an obligation to pay later.

Although five respondents (4%) indicated that they were debt-free, an analysis of monthly payments indicated that eight respondents (6%) did not disclose their monthly debt repayment. This suggests that three respondents (2%) did not pay their debt obligations monthly as per arrangement, and therefore they did not have the means to meet their monthly obligations. Only female respondents were among the eight who indicated not paying monthly debt obligations. Five of the eight were earning between R10 001 and R15 000, while three were earning between R5 001 and R10 000.

Similarly, ten respondents (7%) did not disclose their outstanding debt during the period of the survey. This could mean that they either chose not to disclose or they were completing their debt repayment instalment. The analysis therefore indicated that there were two additional respondents in addition to five who indicated that they were debt-free and four who did not disclose the monthly debt repayment, totalling ten respondents. The non-disclosure of some respondents was taken into consideration during the data analysis.

With 134 respondents (96%) indicating to be indebted, the analysis focused on the reasons why respondents incurred debt, and diverse reasons were disclosed. Of the 134 respondents, only 86 (62%) provided reasons for incurring debt, while 48 (34%) did not disclose their reasons. The question was not applicable to five respondents who indicated from the onset that they did not have debt. Reasons with similarities were grouped together and interpreted accordingly. Figure 3 reveals that the majority of respondents (24%) took on debt because they did not have sufficient funds. Sufficient funds in this case meant money at their disposal to use when buying necessities. This was followed by insufficient income (16%), which described the monthly income the respondents receive for their services or employment. Vehicle loans was the third reason (11%) why respondents incurred debt. Home loans (5%), municipal services (5%) and education (5%) were the least reasons why respondents incurred debt. Some of the reasons given by respondent for incurring debt were: to build a credit record, pay for funeral arrangements, benefit in shops, no savings, family responsibilities and monthly expenditure. These reasons were grouped as "other" because they were mentioned once by different respondents.

The results contradicted the findings by Hurwitz and Luiz (2007) and Núñez et al. (2008) who have argued that the reasons for borrowing among the urban working class in South Africa are mainly for house renovations and funeral arrangements. In the current study, these reasons were only mentioned once by the respondents.

In examining the common types of debt which the respondents were exposed to, store cards were the most common types of consumer debt among respondents. In other words, in measuring the proportion of each type of debt from 12 types reflected in the questionnaire, store cards were the most common types of consumer debt at 26%. This was followed by personal loans from the bank in the case of 18% of the respondents. Loans from family members and from mashonisa (1%) made up the least consumer debts that were reported by the respondents. This is illustrated in Figure 4 below. The category "other" as a type of debt in Figure 4 reported 7% and covered debt that was not categorised, like municipal

services and stokvel. The study supported the findings of the National Credit Regulator (2009), which found that the most common type of debt is store cards (35%) followed, by credit cards (18%).

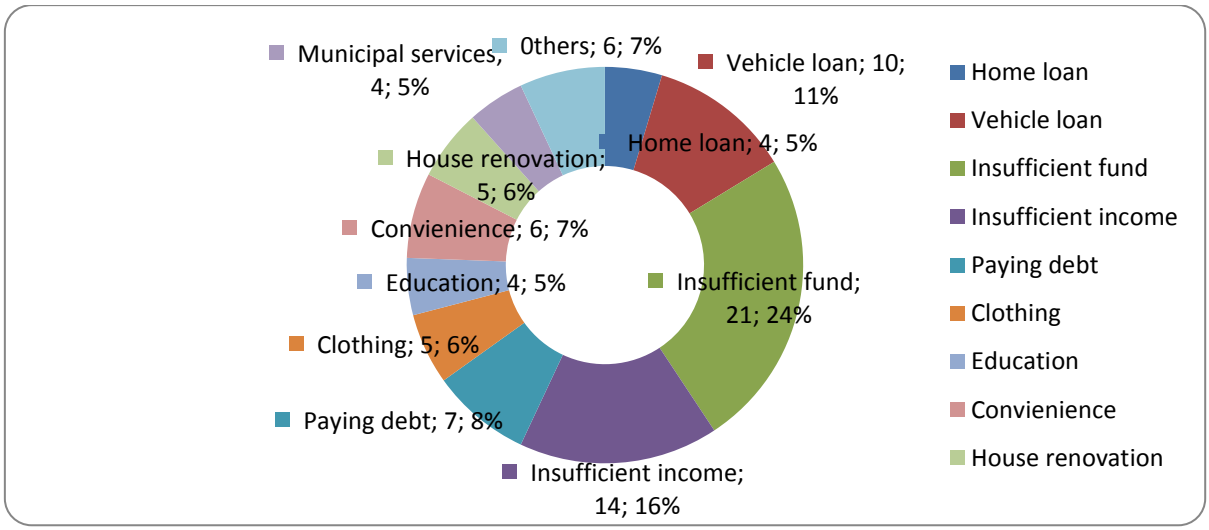


**Figure 3.** Reasons for incurring debt

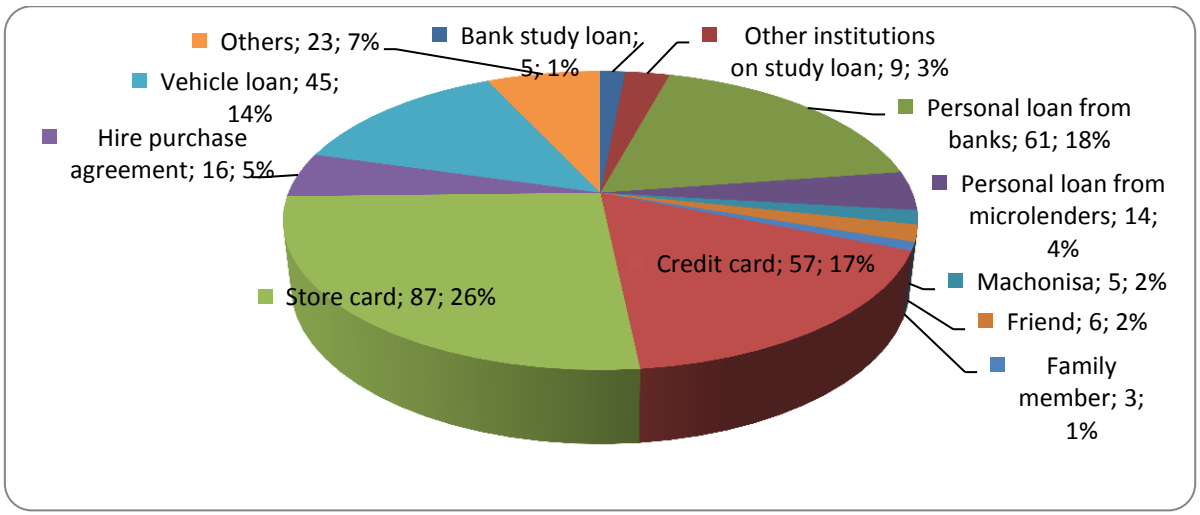


**Figure 4.** Percentage of types of consumer debt incurred

Figure 4 also shows that vehicle loan debt is the fourth most common type of debt (14%) that was reported by the respondents. Figure 5 below, which indicates the value of monthly consumer debt payment by the respondents, shows that 37% of this value is attributed to vehicle loan debt payment. According to Nyaruwata and Leibbrandt (2009), the monthly payments made by respondents are particularly useful when attempting to determine the propensity of households to default on their debt as the level of debt becomes unsustainable when monthly payments consume a substantive proportion of household monthly income.

Twelve variables were used to measure consumer indebtedness. These are shown in Table 4 which explains Figure 4 more closely by indicating the number of respondents per variable on debt payment in the last month. From the table it can also be seen that most of the respondents paid their store cards first and then their credit cards as part of their monthly debt service. Vehicle loan payment value was the highest, as shown by the mean at R2 344 and the maximum amount paid monthly as R14 000. Payment to family members is shown as the lowest rand mean value paid to service debt at R294. The table also indicates that the standard deviation of vehicle loan payments to the mean is the highest among all debt payment variables at R2 344, while study loan payment from other financial institutions recorded the lowest deviation from the mean at R255. The wide variation of individual respondents' monthly debt payment might have influenced the higher standard deviation on vehicle payment.

**Table 4.** Descriptive debt payment variables

| | N | Mean | Standard deviation | Minimum | Maximum |
|---|---|---|---|---|---|
| Payment amount to bank on study loan | 5 | 820.20 | 325.369 | 250 | 1 051 |
| Payment amount to other institutions on study loan | 9 | 637.33 | 255.092 | 300 | 1 000 |
| Payment on personal loan from banks | 61 | 1 767.66 | 1 256.124 | 150 | 7 000 |
| Payment on personal loan from micro-lenders | 14 | 1 965.36 | 1 479.253 | 200 | 6 000 |
| Payment to mashonisa | 5 | 970.00 | 452.217 | 400 | 1 500 |
| Payment to a friend | 6 | 625.00 | 534.556 | 50 | 1 300 |
| Payment to a family member | 5 | 320.00 | 294.958 | 0 | 600 |
| Payment on credit card | 57 | 878.07 | 934.589 | 50 | 4 996 |
| Payment on store card | 87 | 553.08 | 326.096 | 100 | 1 600 |
| Payment on hire purchase agreement | 16 | 801.94 | 434.436 | 200 | 1 500 |
| Payment on vehicle loan | 45 | 4 106.71 | 2 344.235 | 1 615 | 14 000 |
| Payment on others | 23 | 2 243.04 | 1 764.342 | 160 | 5 200 |

For store card payment, even though it is the most popular debt among respondents, the standard deviation shows that debt payment was similar from one consumer to another. Store cards are popular among low-income earners for buying household necessities such as clothes (Lee and Kwon, 2002). Of the respondents, 64% with a monthly income below R5 000 had a store card debt monthly payment as compared to 33% of respondents with a monthly income above R20 000. For income category R5 001 to R10 000, 71% respondents had a store card compared to 66% for income category R15 001 to R20 000. This clearly supports the literature on higher usage of store cards by lower-income consumers.

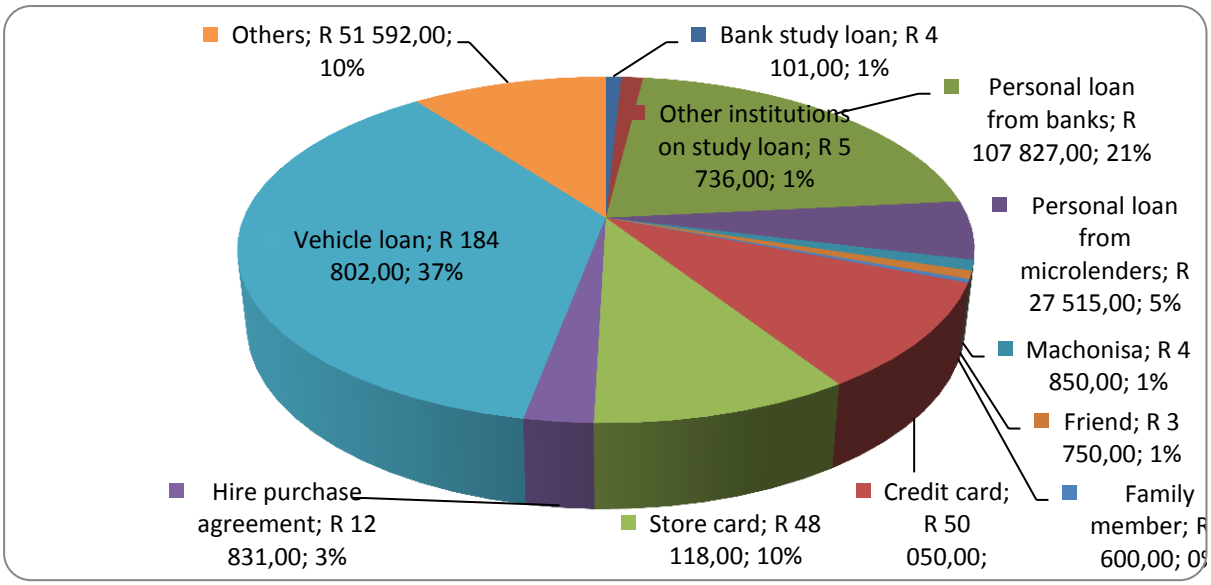


**Figure 5.** Value of monthly debt payment

The total value of vehicle monthly debt payment was R184 802.00 (37%) involving 45 (32%) of the 139 respondents. This was derived from the sum of all vehicle loan monthly instalments disclosed by 32% of the respondents. None of the respondents earning less than R5 000 per month was paying debt in terms of vehicle loans. Personal loan from bank was the second highest value (21%) paid monthly to service debt at R107 827.00. Personal loan was also the second most common type of debt incurred by the respondents. Credit card repayment at R50 050.00 and store card repayment at R48 118.00 each represented 10% of the value of the respondents' monthly debt payment. When comparing the findings of the current study with those of the National Credit Regulator (2011), it was found that the motor vehicle financing was the second highest amount paid by consumers on a monthly basis after their mortgage bond repayment. These findings were similar to those in this study except that the study did not include mortgage bond payment.

The total amount paid by the respondents on variable study loans to banks and other financial institutions other than banks was R4 101 and R5 736 respectively. The two variables represent 1% each of the total last month payment by the respondents. Only five respondents made payments to their own bank for study loans while nine made payments to their own study loan from institutions other than banks. The lowest payment was made to family members at R1

600. While in Hurwitz and Luiz's (2007) study almost a third of the sample was indebted beyond 100% of the debt–income ratio, the current study indicates that only six respondents were indebted beyond 100%. These respondents were within the income range R15 001 to R20 000 (one respondent) and five respondents at income level below R5 000. Twenty respondents were indebted beyond 50%. The majority of these respondents were in the low-income categories. This analysis sought to examine the extent of over-indebtedness among the respondents and the burden they carry on a monthly basis which, if not managed well, could lead to stress and other health complications which ultimately may lead a drop in productivity (Keese and Schmitz 2010). Even though some respondents were severely indebted, 52 (37%) respondents were either not indebted or had a debt–income ratio below 20%. This suggests that 37% of the respondents had acceptable levels of debt (including eight debt-free respondents). When the debt level increases beyond 15%, it requires some attention (Greninger et al., 1996). Only six (11%) of the 52 respondents were indebted beyond 15%.

The number of debt commitments a consumer has also indicates their indebtedness. D'Alessio and Iezzi (2012) suggest that if a consumer has four or more credit commitments, it indicates over-indebtedness. The current study showed that 22% of the respondents had four or more monthly debt commitments. Of those who showed an indication of over-indebted, the majority (35%) earned between R5 001 and R10 000, while very few (6%) earned between R15 001 and R20 000. The number of respondents in the income category R15 001 to R20 000 participating in the current survey were also fewer than in most categories. This seems to suggest that lower-income respondents are more likely to be over-indebted than high-income respondents. As was indicated earlier, eight (5%) of the respondents did not have any debt commitments.

The outstanding value of the consumer debt is the total value the respondents reported to be remaining or owed on their total debt. The total outstanding amount of consumer debt that the respondents in the study indicated amounted to R12 792 683. This was the sum of all the individual respondents' total outstanding debt value reported in the questionnaire. The total outstanding debt on vehicle loans was R6 617 772, which represented 52% of the outstanding debt followed by other debt at R2 725 245 (21%) and personal loans at R1 870 109 (15%). The outstanding debt on loans from a mashonisa (micro-money lender), friend or family members was the lowest at R1 930 000, R155 000 and R600 000 respectively. This trend is similar to the one indicated in Figure 5 above where the last monthly debt repayment to a mashonisa, friend or family member was also the lowest. Figure 6 below indicates the outstanding value of consumer debt as indicated by the respondents.

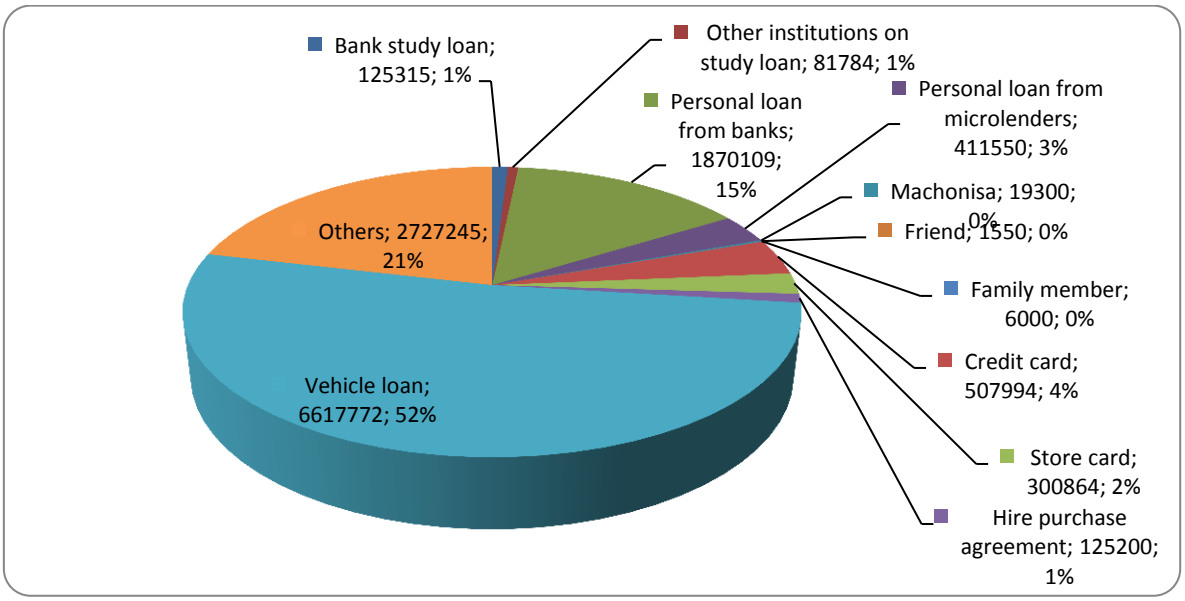


**Figure 6.** Outstanding value of consumer debt

The analysis reported in Figures 4, 5 and 6 indicates that debt on personal loans featured prominently among the top three variables in all three figures. This indicates the influence of personal loan debt on the total consumer debt of the respondents. The analysis is also true for vehicle financing debt although it is not that popular; the value of the debt took up the biggest proportion of total consumer debt reported by the respondents. As indicated earlier, the income used in the analysis was the average after-tax monthly income, which was derived from the median of the range indicated on the questionnaire of monthly

after-tax income. The respondents were categorised into income groups as shown in Table 4 and Table 5 below. All the debt payments made in October 2012 were added per income group to get the total sum of all the debt instalments paid during the month. The highest total amount was recorded for the respondents with an income above R20 000, while the lowest was for the income group earning less than R5 000. The figures in the table correspond with the income the respondents indicated.

**Table 5.** Descriptive data on consumer debt

| Variables | Total last month payment on consumer debt | Mean last month consumer debt payment | Median | Std deviation | Average total monthly after-tax salary |
|---|---|---|---|---|---|
| Less than R5 000 | R40 332 | R2 372 | R2 100 | R1 508 | R59 500 |
| R5 001–R10 000 | R129 683 | R2 446 | R2 008 | R2 044 | R420 000 |
| R10 001–R15 000 | R119 985 | R3 528 | R3 500 | R2 349 | R487 500 |
| R15 001–R20 000 | R69 451 | R7 716 | R4 601 | R7 406 | R157 500 |
| Above R20 000 | R143 319 | R7 962 | R8 150 | R3 836 | R450 000 |
| **Total** | **R502 770** | | | | **R1 574 500** |

Interestingly, as shown in Table 5, the mean of the debt payment shows different results from the total debt payment. The income group earning more than R20 000 reflected the highest monthly debt payment at R143 319 when using the total last monthly payment and the highest mean debt payment. The income group earning R5 001 to R10 000 reflected the second highest total debt payment but the second lowest mean debt payment. This could be attributed to taking out low value debt per individual while respondents earning above R20 000 took out high value debt such as vehicle loans. The income group earning R15 001 to R20 000 reflected the highest standard deviation at R7 406 as compared to the lowest income group earning less than R5 000 at R1 508. This shows that the debt payment for the income group earning R15 001 to R20 000 varies widely from one consumer to another.

The number of respondents and the type of debt incurred in each income group affected the disjuncture between the total and mean debt payments reported, i.e. two of the eight debt-free respondents earned between R5 001 and R10 000 and only ten (18%) of the 56 respondents in this income group reported paying vehicle loan instalments. Deeper analysis of debt payment per income category indicated that for income less than R5 000, more payments were made on personal loans from banks at R14 756, while there were no debt payments on vehicle loans and study loans from other payments. Credit card payment had the highest mean and, as shown by the standard deviation, there was a wider variation of credit card payment than any other debt variables in this income group.

The income group earning R5 000 to R10 000 also indicated similar trends with the income group earning less than R5 000 having the highest total debt payment, namely personal debt from the bank at R39 274. In this income group, total payment on vehicle loan was however the second highest at R27 418, while payment on bank study loans was the lowest total debt payment at R900. Payments by individual respondents varied more in the variable payment to other loans than any other debt variable.

When focusing on the income group earning R10 001 to R15 000, payment to vehicle loan dominated all other variables at a total payment of R51 534 followed by personal loans from a bank at R25 297. No debt payments were recorded for mashonisa and family members. Debt payments for vehicle loans varied greatly from one consumer to another at R1 944 - more than any other variable used in the study. Similar trends were found for the income group R15 001 to R20 000, where debt payment in terms of vehicle loans was the highest at R32 150, followed by personal loans from the bank at R11 400. None of the respondents in the income category above R20 000 indicated paying debt in terms of the following variables: study loan from the bank, study loan from other financial institutions, friend, mashonisa, family member and hire purchase agreement. In this category, total debt payment to vehicle loans was the highest at R73 700 followed by debt to others at R31 900. Mean payment of vehicle loans was the highest at R5 254, also with the highest standard deviation of R1 640.

As indicated in Figure 4, the four most common types of debt paid by the respondents included store cards, personal loans from banks, credit card repayments and vehicle loans. The same variables contributed the highest value of payment as shown in Figure 4. It is against the above background that Table 6 reports on an attempt to isolate the four variables in order to analyse them in more detail. The table indicates that the higher the income, the higher the debt payment on vehicle loans. This is shown by the mean, median and the total debt payments. The mean store card payment for all variables was the lowest and ranged from R408 for the income group earning R15 001 – R20 000 to R587 for those earning between R10 001 and R15 000 being the highest. Interestingly, consumers earning less than R5 000 had a mean credit card debt of R2 382, which was higher than that for consumers earning above R20 000, namely R1 030. It should, however, be noted that only

three respondents earning less than R5 000 paid credit card debt while 12 consumers earning above R20 000 paid this type of debt.

**Table 6.** Four most common consumer debt variables

| | Sum | Mean | Std deviation | Median |
|---|---|---|---|---|
| | **Less than R5 000** | | | |
| Payment on personal loan from bank | R14 756 | 1 475 | 473 | 1 331 |
| Payment on credit card | R7 146 | 2 382 | 2 303 | 1 500 |
| Payment on store card | R5 430 | 452 | 278 | 400 |
| Payment on vehicle loan | | | | |
| | **R5 001–R10 000** | | | |
| Payment on personal loan from bank | R39 274 | 1 510 | 827 | 1 450 |
| Payment on credit card | R13 648 | 758 | 786 | 500 |
| Payment on store card | R22 788 | 584 | 320 | 500 |
| Payment on vehicle loan | R27 418 | 2 741 | 924 | 2 500 |
| | **R10 001–R15 000** | | | |
| Payment on personal loan from bank | R25 297 | 1 806 | 1 543 | 1 085 |
| Payment on credit card | R11 186 | 588 | 651 | 480 |
| Payment on store card | R14 100 | 587 | 407 | 475 |
| Payment on vehicle loan | R51 534 | 3 435 | 1 944 | 3 000 |
| | **R15 001–R20 000** | | | |
| Payment on personal loan from bank | R11 400 | 3 800 | 2 884 | 3 000 |
| Payment on credit card | R5 700 | 1 140 | 1 059 | 700 |
| Payment on store card | R2 450 | 408 | 201 | 350 |
| Payment on vehicle loan | R32 150 | 5 358 | 4 304 | 4 050 |
| | **Above R20 000** | | | |
| Payment on personal loan from bank | R17 100 | 2 137 | 1 300 | 1 550 |
| Payment on credit card | R12 370 | 1 030 | 761 | 850 |
| Payment on store card | R3 350 | 558 | 91 | 500 |
| Payment on vehicle loan | R73 700 | 5 264 | 1 640 | 5 000 |

Tables 6 and 8 indicate debt payment by gender. The study shows that the men are more indebted than women and they also pay bigger amounts to service their debt obligations than women. This is despite the fact that only 33% of the respondents were men. This was confirmed by the sum total of debt repayment and outstanding debt that was proportionally higher than that of their female counterparts. Similarly, the study supported the findings of various other studies such as those by Jacobs and Smit (2010), Ardington et al. (2004), Daniels (2001) and the Public Service Commission (2007) where it was found that men tend to have a higher level of indebtedness than women. Table 7 below indicates the monthly debt payment per gender.

**Table 7.** Monthly debt payment per gender

| Gender | Sum | Mean | Median | Standard deviation |
|---|---|---|---|---|
| Male | R266 926 | 5 802 | 5 004 | 4 429 |
| Female | R235 844 | 2 774 | 2 224 | 2 563 |
| Total | R502 770 | 3 837 | 3 000 | 3 625 |

The outstanding debt obligation in Table 7 shows a similar trend as that in Table 6 in terms of the total sum, the mean, median and the standard deviation per gender. The data suggests that men are more indebted than women. Male respondents' individual payments also varied widely from one respondent to another. The results in Table 8 below reaffirm that men are more indebted than women.

**Table 8.** Outstanding debt obligation per gender

| Gender | Sum | Mean | Median | Standard deviation |
|---|---|---|---|---|
| Male | R7 776 848 | 169 061 | 122 957 | 171 176 |
| Female | R5 015 835 | 59 009 | 18 000 | 96 190 |
| Total | R12 792 683 | 97 654 | 43 797 | 13 748 |

### *4.5 After-tax monthly income to last month debt payment ratio (Debt-income ratio)*

As shown in Table 3, the mean total after-tax monthly salaries was determined by adding the range of the salary income variables and using its median, i.e. the income used for income level R5 001 to R10 000, which was R7 500. In determining the debt–income ratio of the two categories, total monthly debt payment and total average after-tax monthly salary indicated by the respondents were used. Their calculations are highlighted as income reflected in Table 3 and Figure 5 for debt payment. The debt–income ratio was calculated as indicated in Table 9 below. The respondents earning an income less than R5 000 were shown to have a debt–income ratio of 68%, which is the highest among all four income groups. The reasons could be low total after-tax monthly income among the four income groups (see Table 3). The results in Table 8 suggest that the respondents earning less than R5 000 were highly indebted.

The respondents earning between R15 001 to R20 000 had the second highest debt–income ratio at 44%. The respondents with income between R10 001 and R15 000 had the lowest debt ratio at 25%. This could be due to the highest total monthly after-tax income attributed to this income group. Five of the debt-free respondents also fell into this group.

**Table 9.** Debt–income ratio per salary level

| Variables | Total last month payment on consumer debt | Average total after-tax monthly salary | Total last month debt/total after-tax monthly salary income (debt–income ratio) |
|---|---|---|---|
| Less than R5 000 | R40 332 | R59 500 | 68% |
| R5 001–R10 000 | R129 683 | R420 000 | 31% |
| R10 001–R15 000 | R119 985 | R487 500 | 25% |
| R15 001–R20 000 | R69 451 | R157 500 | 44% |
| Above R20 000 | R143 319 | R450 000 | 32% |
| Total | R502 770 | R1 574 500 | 32% |

The debt-income ratio is also reflected clearly in Figure 7 below where the graph reflects a decrease in debt ratio as the income increases. Although there is an increase in the monthly income group of R15 001 to R20 000, the overall trend suggests a decline as income increases. The possible high debt ratio at the lower level was highlighted by Mashigo (2006), who indicated that the debt spiral is mostly prevalent among poor households.

Even though statisticians prefer mean debt payment to total debt payment when calculating the debt–income ratio, some researchers, such as Daniel (2001), have also used the total debt–income ratio to analyse the level of consumer indebtedness. Figure 8 below indicates that there were no major differences between mean debt–income ratio and the total debt–income ratio and thus the study conservatively used total debt to income ratio in the analysis. The highest debt–income ratio was found for the respondents earning below R5 000 per month for both the mean and total debt, while the income group R10 001 to R15 000 was the lowest in both the mean and total payment method of calculation. It should therefore not matter which method is used between mean debt and total debt to calculate the debt–income ratio.

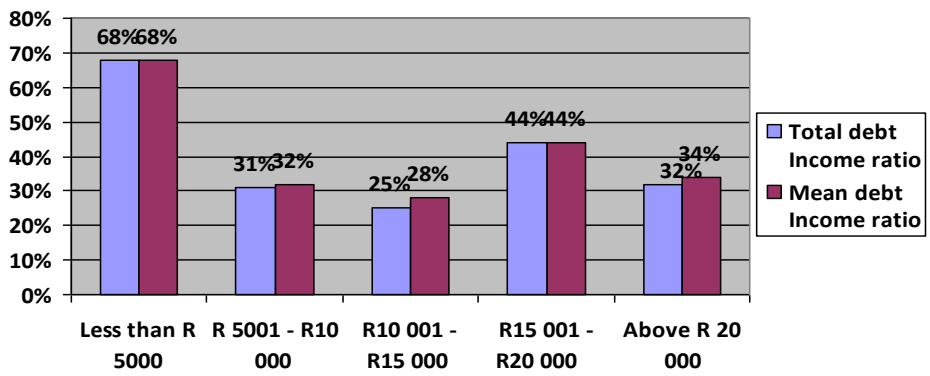


**Figure 7.** Comparing total debt–income ratio and mean income ratio

As shown in Table 8, the aggregate total debt–income ratio of all the income categories was at 32%. This is slightly less than the non-mortgage debt of 37% indicated by the South African Reserve Bank (2012). The figures are above the 25% threshold indicated by the Bureau of Market Research (2009), which defines over-indebtedness in consumers who spend more than 25% of their gross monthly income on unsecured repayments and above 20% non-mortgage debt payments to after-tax income. This debt–income ratio is supported by Greninger et al. (1996) who applied the non-mortgage debt payments to after-tax income, which indicates the danger point of over-indebtedness when the ratio is above 20% of total debt payments on after-tax income. The debt in the study concerned only consumer debt and thus excluded mortgage debt. The 20% non-mortgage debt payment on after-tax income was therefore applicable.

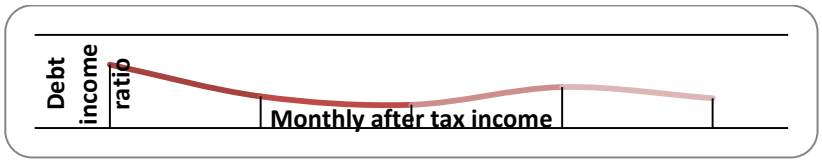


**Figure 8.** Proportion of indebted respondent by monthly after-tax income

### *4.6 Personal expenditure*

The monthly personal expenditure was measured using 17 variables. All 139 respondents indicated monthly expenditure on two or more variables in the questionnaire. A total expenditure amount of R802 571 on all variables was reported by the respondents. Expenses on food items were the highest at R190 000 00 per month, which was equivalent to 24% of the total monthly expenditure. This was followed by housing at 17%. Housing debt included renting and other payment such as renovations and home payments. The lowest expenditure was on tobacco at R281 000. This represents expenses by only five of the 139 respondents on this variable. Interestingly, the total expenditure on reading material was the second lowest at R626 500. Figure 9 below indicates the percentage of total monthly expenditure by variables.

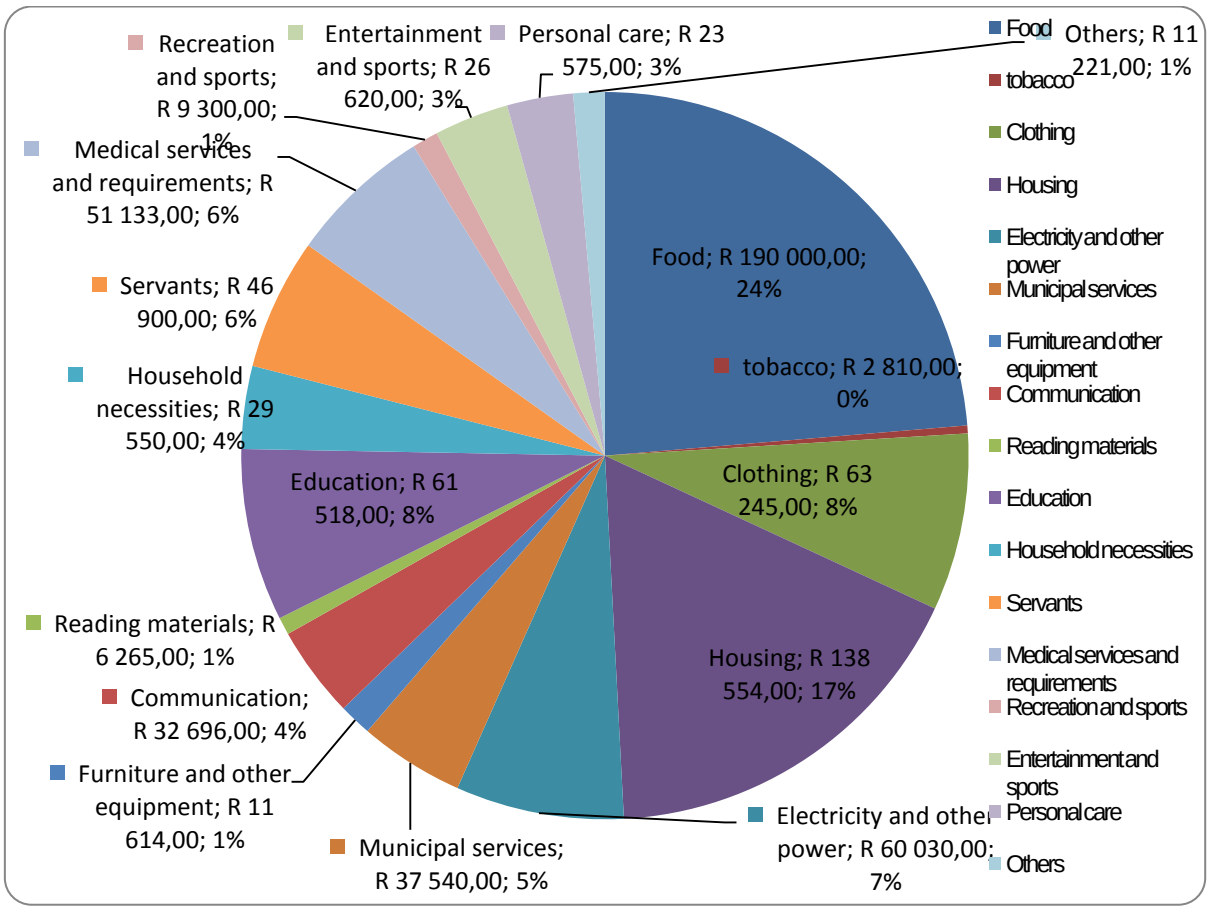


**Figure 9.** Rand value of monthly personal expenditure

The total monthly expenditure reported in the study was 37% higher than the total debt paid in the previous month. This is shown by the values in Figure 10 below. The figure also indicates that 51% of the income was spent on monthly expenditure. As shown in Table 5, 32% of the income was spent on servicing consumer debt. This thus implies that respondents spent 83% of their income every month on servicing monthly expenses and debt obligations. According to Nyaruwata (2009), one of the over-indebtedness indicators is found where a consumer has a total combined debt servicing and basic expenditure ratio of 70% or more of their disposable income. The remaining amount (30%) is probably spent on mortgage debt, savings, insurance, funeral covers and other commitments.

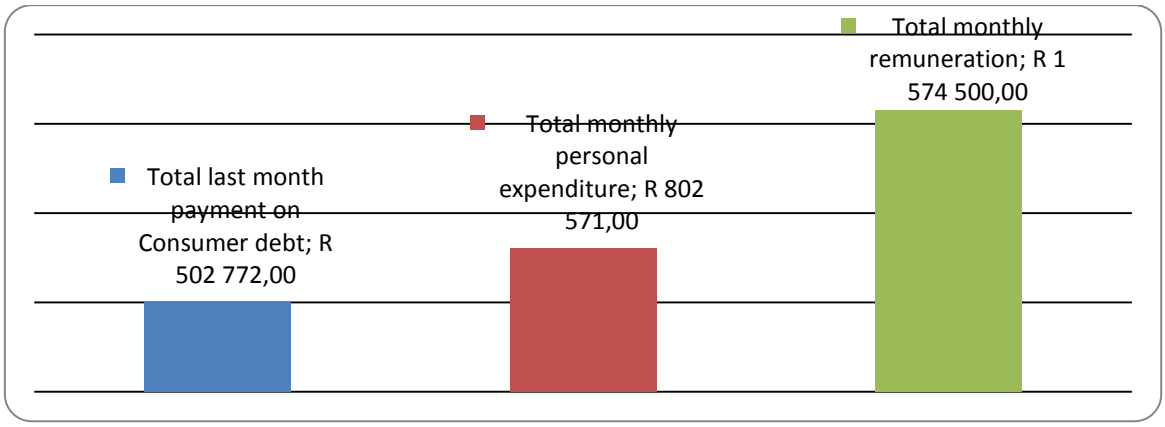


**Figure 10.** Total monthly debt payment to personal expenditure

### *4.7 Garnishee order*

Secondary data on garnishee orders was collected from the PERSAL system as reflected for November 2012. Raw data was exported from the system and analysed to try to reach the objective of the study. The aim was to determine the number of department of health employees working at the provincial office who had either garnishee or emolument orders – i.e. those having court orders to pay a debt obligation.

The data from the PERSAL system indicated that 62 employees working at the provincial office of the department of health had monthly deductions from their salaries to pay their debt. This was out of a total of 469 permanently employed employees. Thus 13% of the permanently employed staff at the provincial health department in North West Province have been served with judgement orders to pay their debt and thus may be over-indebted. This finding is similar to the Consumer Credit Market report of the NCR (2012), which indicated that 13.9% of consumers had judgements or administrative orders against them. The report indicates a lesser degree of cases of judgement orders than those reflected by the literature. According to the University of Pretoria Law Clinic (2008), there is an increase in the number of impaired credit records in South Africa as 37.7% of consumers have impaired credit records. The Public Service Commission (2007) has reported that 20% of public servants have garnishee orders served against them. Even though the survey report indicates a smaller number of respondents with garnishee orders, it is still a matter of concern.

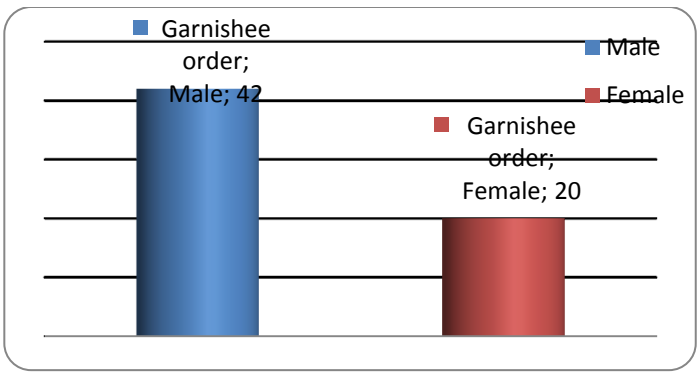


**Figure 11.** Number of employees with garnishee orders per gender

Looking at garnishee order per salary level, the study found that more respondents at salary levels 6 to 8 have garnishee orders issued to them. This is in line with the report from the Public Service Commission

(2007), which highlighted that public servants on salary levels 6 to 8 account for a large number of payments towards garnishee debt. This is supported by the fact that 118 employees (25%) on the provincial office's payroll fall into this salary level range. The number of employees above level 13 was found to be the lowest with regard to garnishee orders, at less than 1%, which is also consistent with the findings of the Public Service Commission (2007). This could indicate that respondents at this salary level have enough monthly income to cover their monthly debt obligations without persuasion by court order. Figure 12 below indicates the number of garnishee orders per salary level.

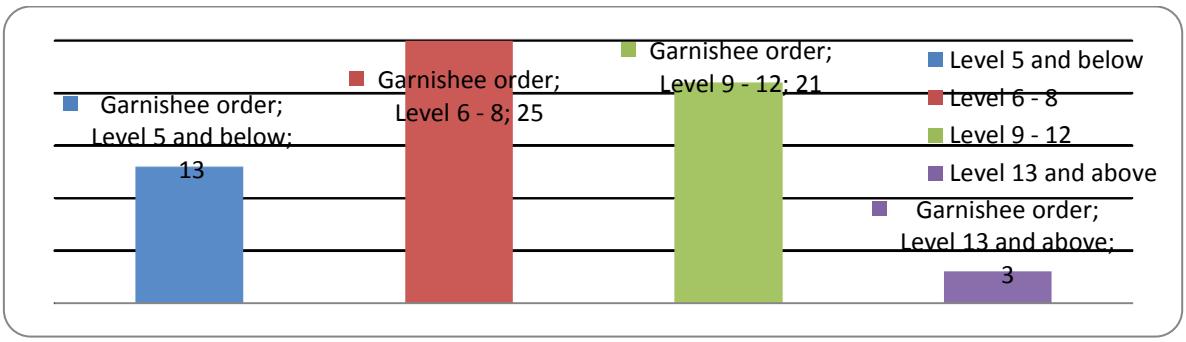


**Figure 12.** Number of garnishee orders per salary level

## 5. Conclusion and recommendations

The primary objective of this study was to determine the consumer debt level of public servants in the Department of Health in the North West Province, South Africa. The results of the study indicate that most public servants rely almost entirely on the public service remuneration to survive and for debt repayment. The results of the survey also indicate that 96% of public servants in the Department of Health in the North West Province are over-indebted. The respondents also perceived their income to be insufficient and thus resort to credit to maintain their required standard of living. The results also indicate that 63% of the respondents have a debt-income ratio above 20%. The reason for falling into debt is mostly due to lack of funds and insufficient income. The most common types of consumer debt found among the respondents included store cards (26%), followed by personal debt from banks (18%), while vehicle loan debt (37%) consumed the highest rand value of total debt among respondents. Personal loans from banks (21%) comprised the second highest debt value incurred by the respondents. It could be argued therefore that most public servants are over-indebted and could be trapped in a debt cycle if no additional income is provided or if they do not embark on some kind of personal financial management education.

According to the results, it was found that 13% of the public servants have been served with garnishee orders. Most of the affected public servants in this regard belonged to the middle income category. The report seems to suggest that public servants at the department of health are less affected by garnishee orders compared to what the Public Service Commission (2007) report found which indicated that 20% of public servants had been served with a garnishee order.

The survey also found that most of the respondents (96%) were indebted and that consumer debt ranged from 25% for respondents earning income between R10 001 and R15 000 and 68% for respondents earning less than R5 000. The majority of respondents (24%) used debt to supplement the lack of funds at their disposal while shopping and to increase their funds. It appears that consumers are unable to buy their daily necessities by paying cash and thus resort to instalments which cause them to incur debt. Most respondents (26%) had a store card as a source of debt and the bulk of their monthly debt went towards paying (47%) for vehicle financing. The study also indicated that 32% of income was spent on servicing debt.

The monthly expenditure plays an important role in determining whether consumers will be able to pay their debt obligation. The study found that 51% of the monthly income was spent on monthly expenditures such as personal necessities, e.g. food, clothing, communication, and other described in Figure 4.9. This could make it difficult for consumers to cover other necessities such as mortgage bonds, insurance, health care, savings and investment which were not covered by the study.

With all their expenses, it sometimes becomes difficult for people to meet their debt obligations. This may prompt legal action by creditors to ensure that they get what is due to them. The consumer then ends up with a garnishee order or emolument order against them for debt they cannot service. Consumers are thus forced to settle their debts, which may in turn result in another debt being incurred to cover the monthly shortage. It is therefore crucial that consumers be aware of their debt status and when to stop incurring more debt. Financial education and awareness of organisations that support consumers in debt are important to manage financial problems.

## 6. Managerial implication and recommendations

Employees who are indebted affect the organisation's performance, employees' health and wellbeing and other employees (Garman, 1996; Keese and Schmitz, 2010; Barnard, Peters and Muller, 2010:2). The results of this study indicate that there is a large number of public servants who are over-indebted.

In light of the above findings, the following recommendations are made:

- The department of health through its wellness programme directorate needs to institute systems to identify over-indebted employees and assist them in managing the problem. All employees who are on the employees wellness assistance programme have to be assessed for over-indebtedness. Such assessment forms are available at the National Credit Regulator (NCR).
- The department of health should also initiate a personal financial wellness programmes that can be offered to its employees in an effort to assist employees to manage their income more efficiently.
- All employees with deductions of more than 30% from their disposable income directly from the PERSAL system should be regarded as high-risk employees and should be specially monitored by the human resource unit and employees wellness programme.

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# THE DISCLOSURE IN SOCIAL REPORTING OF ENERGY SECTOR: EXPERIENCES FROM ITALY, THE USA AND CHINA

***Alberto Romolini*, Elena Gori**, Silvia Fissi******

**Abstract**

Attention towards CSR issues is very high in Europe and America, but also in countries like China, which have little cultural tradition of it. The purpose of this paper is to evaluate the quality and the trend of social reporting in Italy compared with in the USA and China by exploring the indicators disclosed within social reports. The study considered the energy and utilities sector by analysing the quality of social reporting through the indicators disclosed in 2009, 2010 and 2011 reports according to GRI guidelines. The research results show the quality level of social reporting in Italy is higher than that of the USA and China. However the research hypothesis was not confirmed as the quality does not show an increased trend. Chinese companies show opposite results as the quality levels dropping notably between 2009 and 2011.

**Keywords:** Social Reporting, CSR, Energy Sector, Italy, the USA, China

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## 1. Introduction

Over the last few years, social reporting has been increasing importance among corporations and their stakeholders around the world (Hahn and Kühnen, 2013; IIRC, 2011).

Attention towards social reporting is very high in Europe and America, but also in countries like China, which have little cultural tradition of it (UNEP, 2010). According to KPMG (2013), the insufficiency of social disclosures will eventually change due to external pressure from expansion of foreign trade, local enterprises seeking overseas listing and increasing product sourcing from Chinese suppliers by many multinational companies or the imposition of supply chain requirements on local manufacturers (Yang and Yaacob, 2012).

Comparative studies of social reporting are relatively recent (Williams and Aguilera, 2008), while theoretical perspectives on corporate social performance or stakeholder management have been developed for over two decades (Freeman, 1984; McWilliams and Siegel, 2000). It is only in the last decade that studies have begun to explore differences in social reporting from a comparative perspective. Some comparative studies compared the perspectives and strategies on social reporting in different corporate governance systems, such as contrasting Anglo-American versus Continental European approaches to CSR (Habisch *et al.*, 2011). Other studies aimed to show differences in companies' approaches to social reporting in countries with similar socio-political tradition within these corporate governance systems (Kolk, 2008).

Previous studies on quality comparing different countries only examined social reports for one single year and so they were unable to highlight trends in reporting quality (Williams and Aguilera, 2008). Egri and Ralston's research (2008) found that some countries are not well represented by current research and that studies did not include countries that might have different demographic characteristics.

In this paper, we have focused our attention on social annual reporting by analysing GRI indicators of utilities sector companies in Italy, the USA and China. We compare the Italian situation in between two poles: the one with a long tradition of social reporting like the USA and the other characterised by an emerging market and constantly increasing attention to social reporting like China (Gao, 2011; Ip, 2008; Sá de Abreu *et al.*, 2012). Given that Italy is among the most advanced countries in Europe for social reporting (KPMG, 2011), we believe it is interesting to find out if there are differences in

growth of quality in social reporting between an advanced economy and a developing one. At the end, China is the biggest developing country in the world and it has a totally different culture and political economy from the West, however state-owned companies are very keen to address social issues which are also used in "political slogans" by the Chinese government (Yang, 2008).

## 2. Literature review

In recognition of the wide variety of material that appears in sustainability reports, there have been a number of studies focusing on sustainability reporting practices, including the content, scope and structure of the reports (Beloe *et al.*, 2006).

National-level studies have also been carried out in numerous countries over the last 10 years, including Bangladesh (Sobhani *et al.*, 2009), Canada (Davis and Searcy, 2010), Germany (Gamerschlag *et al.*, 2011), Greece (Skouloudis *et al.*, 2010), Italy (Costa and Menichini, 2013; Perrini *et al.*, 2006; Secchi, 2006), Norway (Vormedal and Ruud, 2009), Sweden (Hedberg and Von Malmborg, 2003), Switzerland (Stiller and Daub, 2007) and Thailand (Ratanajongkol *et al.*, 2006). The majority of studies focused on assessing the quality of disclosure by evaluating the social reporting of Stock Exchange listed companies. Authors utilised various methods of analysis: content analysis, benchmarking analysis, case studies and so on. The above studies show that the quality of social reporting depends on qualitative and quantitative information and on the extent to which the company has managed to improve its economic, environmental and social effectiveness and efficiency in the reporting period (Daub, 2007).

The majority of publications on quality of social reporting have focused on the design of sets of indicators (Spangenberg, 2002; Zhao *et al.*, 2012). In order to define indicators, companies should carry out stakeholder engagement activities, as they are a crucial element in order to assess the quality of the social reporting model. Research on indicators has focused on both the individual corporation and sector-level (Searcy, 2012). Searcy (2012) pointed out that previous research has focused on short time horizons in order to evaluate sustainability indicators and this is a particularly important oversight given the explicit long-term focus of sustainability (Lenzen *et al.*, 2004).

Little research has been conducted on the indicators used to convey quantitative information in social reports, but, as Daub (2007) explains, indicators represent the concrete data on the corporation's performance with respect to sustainability and thus are considered at least as important as the qualitative part of sustainability reporting. Other examples of studies into indicators are those of Adams and Frost (2006) who highlighted the importance of including key performance indicators in sustainability reporting, but few studies have explored the specific indicators disclosed. An exception to this is the study of Skouloudis and Evangelinos (2009) who conducted a review of 17 sustainability reports published by Greek companies. They conducted an analysis of economic, environmental and social performance disclosures.

One of the first in-depth reviews of indicators was provided by Roca and Searcy (2012) concerning sustainability reports and the use of indicators in Canada. Roca and Searcy do not try to evaluate the quality of social indicators, limiting their research to identifying indicators that are currently disclosed in sustainability reports. Their findings highlight a wide variety of indicators disclosed (585 different indicators), variously distributed among the three main issues: economic, environmental and social.

The GRI are the reporting guidelines most commonly used by international companies even if these guidelines do not support standardisation of reporting (Morhardt *et al.*, 2002). In fact, GRI guidelines do not require companies to fulfil or handle all topics. Thus, companies are free to choose from the guidelines in any way they prefer and this contributes to the difficulty of assessing social reporting quality.

The primacy of the GRI model is underlined by the fact that, according to a recent survey, 77% of the G250 companies claimed to have followed GRI guidelines (KPMG, 2011). Other reports have highlighted that GRI guidelines have been voluntarily applied in over 1,000 companies worldwide (GRI, 2010a). GRI guidelines have been applied by corporations in numerous sectors including energy, water and waste management (GRI, 2010b). However, despite its popularity, there are several studies that go beyond the GRI's indicators (Keeble *et al.*, 2003).

At the sector level, the GRI has recently developed supplements - in varying stages of development - for several sectors, including among others automotive, electric utilities, mining and metals, oil and gas and telecommunications (GRI, 2010a). The supplements provide sector-specific guidance on the application of the core GRI guidelines, but also provide lists of new indicators. Academic literature also focused on the sector level and emphasised that each sector needs its specific indicators (Staniskis and Arbaciauskas, 2009; Veleva and Ellenbecker, 2001). La Rovere *et al.* (2010) used data envelopment analysis (DEA) as an evaluation tool to develop a set of indicators (economic, environmental, social and technological) to analyse the sustainability issues of the electric sector, while Narodoslawsky and Krotscheck (2004) applied the Sustainable Process Index (SPI) to the energy production system.

The generic indicators developed by GRI have been criticised on several grounds, including for being overly general and too many (Moneva *et al.*, 2006).

However many criticisms derive from the analysis of specific sectors, while comparisons between different countries require standardised indicators such as those of GRI (Verschoor, 2011).

Given the above, if we want to measure the quality of information of utilities sector social reporting, we can refer to GRI indicators defined in Framework as Application Levels A, B, or C, depending on the number and set of disclosures addressed by the organisations (Romolini *et al.*, 2014).

On the basis of our analysis of the literature, we believe it is possible to assess the maturity level of social reporting and to measure the quality of annual social reports by evaluating the GRI indicators.

## 3. Method

Research was carried out using the inductive method. As GRI is the model principally adopted at international level for social reporting, we consulted its database to find Italian, Chinese and American companies using this model. We analysed the 2011 reports. The investigation was further limited to the energy and utilities sector, among the most active in social reporting (Mio, 2010; Romolini *et al.*, 2014), to obtain a more homogeneous population for analysis, both for company size & for type of report drawn up.

Reporting quality was evaluated by analysis of indicators in the 2011 reports, according to GRI guidelines 3.1. This approach is similar to that of Graves and Waddoch (2000), Callan and Thomas (2009), Romolini *et al.* (2014).

Information about social reporting was gathered from websites as previous research has found that the corporate website is the most popular avenue for disseminating CSR disclosures, followed by press releases and by mandatory filings (Holder-Webb *et al.*, 2009; IE School of communication, 2010).

The analysis was carried out in two phases.

Firstly, the presence of indicators was verified according to the GRI standard table. To do this, we noted the use of each indicator from the model and then calculated the average value of all the indicators based on reporting issues laid down by GRI. Because the groups of companies from the three countries differed numerically, it was necessary to use an average value in order to have homogeneous and comparable results.

Then, to evaluate the maturity achieved by the practice of social reporting, another quantitative analysis was carried out, attributing a weight to each of the indicators present in the reports. The GRI standard includes compulsory (core) and voluntary (additional) indicators. We assigned a different weight to the two types, since the former represents a binding element for the model application, while the second is additional information that improves the disclosure.

In general, we assigned a weight of 1 to core indicators and 0.5 to the additional ones for the waste management & water utilities. Moreover, the GRI provides sector guidance for the energy utilities that envisages indicators over & above the general model.

For example, for the Economic Area, the general standard envisages 7 core indicators and 2 additional ones, with 3 more core indicators recommended by sector guidance for energy utilities, for a total of 10. We took this greater number of indicators for energy utilities into consideration, to ensure comparability when assigning weights, assigning a weight of 1 to core indicators for waste management and water utilities and 0.7 to energy utilities. Consequently, weights of indicators were specified for each area from the GRI model – economic, environmental and social (the latter was divided into labour practices and decent work, human rights, society and product responsibility) (Table 1).

**Table 1.** Assessment of GRI index

| | **Energy utilities** | **Waste management and water utilities** |
|---|---|---|
| **Economic area** | | |
| Core | 0.7 | 1 |
| Additional | 0.5 | 0.5 |
| **Environmental area** | | |
| Core | 0.95 | 1 |
| Additional | 0.542 | 0.5 |
| **Social area** | | |
| *Labour practices and decent work* | | |
| Core | 0.82 | 1 |
| Additional | 0.5 | 0.5 |
| *Human Rights* | | |
| Core | 1 | 1 |
| Additional | 0.5 | 0.5 |
| *Society* | | |
| Core | 0.86 | 1 |
| Additional | 0.5 | 0.5 |
| *Product responsibility* | | |
| Core | 0.4 | 1 |
| Additional | 0.5 | 0.5 |

To take into account numerical differences in companies in the three countries studied, absolute values for each area were calculated dividing results by the number of companies in each country.

The population of the research is represented by the companies classified as “energy utilities” “waste management” and “water utilities” in the GRI database. The database was consulted for the last time on 7th December 2013 (Table 2).

**Table 2.** The population of the research

| China | Italy | USA |
|---|---|---|
| China Petrochemical Corporation | A2A Spa | American Electric Power |
| China Southern Power Grid | Acea Spa | Avista Utilities |
| Power Assets | AcegasAps Spa | Chevron Corporation |
| Suntech | Comieco | Duke Energy |
| The Macao Water Supply Co. Ltd. | Edipower Spa | Exxon Mobil |
| Taiwan Power Company | Edison Spa | Hallinburton |
| China Huaneng Group | Enel Spa | Nevada Energy |
| China Shenhua Energy Co. Ltd. | Eni Spa | Nextera Energy |
| China Datang Corporation | Erg Spa | Nisource |
| HK Electric | Hera Spa | NRG Energy |
| Sinochem Group | Gruppo Iren Spa | PG&E |
| CLP Group | GSE Spa | Pinnacle West Capital Corporation |
| | Raffineria di Gela-Eni Spa | Progress Energy |
| | Snam Spa | PSEG |
| | Sorgenia Spa | San Francisco |
| | Pavoni Rossano Srl | The Southern Company |
| | Terna Spa | Waste Management |

The GRI database includes 17 Italian firms, 15 of which operate in the energy utilities sub-category and 2 in waste management. There are 22 American companies listed, 20 of which operate in the energy sub-category, 1 in waste management and 1 in water. We did not include 5 companies whose reports were not available online or who did not show GRI indicators.

In the GRI database, we found a list of 22 companies operating in the energy utilities sector and 2 in the water sector. The Chinese documentation was particularly difficult to analyse, as some documents were only available in Chinese; other reports were not available on company websites. In the end we included 12 Chinese companies.

Finally, in order to investigate whether any improvements had taken place in the quality of sustainability reporting by the companies studied, we extended our analysis to the 2009 and 2010 reports.

## 4. Results and discussion

The analysis of indicators in the 2011 reports shows the results summarised in Table 3. In particular, the following table illustrates the average number of indicators for each of the reporting areas.

Under "Economic Performance Indicators", Italy has the highest results for the "Economic performance" area, followed by China. The Chinese enterprises perform better in the "Indirect economic impacts".

In the environmental category, apart from "Raw materials", "Biodiversity" and "Products and services", Italian companies register the best results. The highest average values, for all companies, were found for "Direct and indirect emissions", followed by "Energy" and "Biodiversity". The considerable attention paid to the environmental macro-area can probably be partially linked to agreements contained in the Kyoto Protocol and the attempt to safeguard the world's ecosystem.

Other particularly relevant issues concern evaluation of the corporate activity's social impact, with special reference to working conditions reported under "Labour practices and decent work". More specifically, the highest values were registered for "Health and safety at work", followed by "Employment" and "Training and education". Here too, European practice as represented by Italy is the benchmark while results from Chinese companies show the best performance in "Training and education".

As far as "Human Rights" are concerned, overall less attention was paid to this area because of the questionable belief that safeguarding human rights is the responsibility of national legislation rather than of corporate social responsibility. Also in this area, the best performance is registered by Italian companies, followed by Chinese and American firms.

**Table 3.** GRI indicators in Chinese, Italian and US companies, 2011 reports

| | China | Italy | USA |
|---|---|---|---|
| Economic perfomance indicators | | | |
| Economic performance (EC1-EC4) | 2,67 | 3,18 | 2,65 |
| Market presence (EC5-EC7) | 1,67 | 1,76 | 1,29 |
| Indirect economic impacts (EC8-EC9) | 1,42 | 1,12 | 1,41 |
| Environmental performance indicators | | | |
| Raw materials (EN1-EN2) | 1,25 | 1,24 | 0,76 |
| Energy (EN3-EN7) | 3,50 | 3,71 | 3,35 |
| Water (EN8-EN10) | 1,92 | 1,94 | 1,53 |
| Biodiversity (EN11-EN15) | 2,50 | 2,82 | 3,71 |
| Direct and indirect emissions (EN16-EN25) | 5,67 | 7,41 | 6,18 |
| Products and services (EN26-EN27) | 1,00 | 0,88 | 1,00 |
| Conformity (EN28) | 0,25 | 0,88 | 0,82 |
| Transport (EN29) | 0,34 | 0,65 | 0,47 |
| General (EN30) | 0,50 | 0,53 | 0,41 |
| Social performance indicators | | | |
| *Labour practices and decent work* | | | |
| Employment (LA1-LA3) | 1,75 | 2,47 | 1,59 |
| Industrial relations (LA4-LA5) | 0,84 | 1,88 | 0,71 |
| Health and safety at work (LA6-LA9) | 2,50 | 3,12 | 2,24 |
| Training and education (LA10-LA12) | 2,25 | 2,12 | 1,82 |
| Diversity and equal opportunity (LA13-LA14) | 1,34 | 1,53 | 0,88 |
| *Human rights* | | | |
| Investment and procurement practices (HR1-HR3) | 1,09 | 1,71 | 1,00 |
| Non discrimination (HR4) | 0,50 | 0,76 | 0,18 |
| Freedom of association and collective bargaining (HR5) | 0,42 | 0,53 | 0,24 |
| Child labour (HR6) | 0,50 | 0,65 | 0,35 |
| Forced and compulsory labour (HR7) | 0,59 | 0,65 | 0,29 |
| Security practices (HR8) | 0,08 | 0,24 | 0,29 |
| Indigenous rights (HR9) | 0,08 | 0,41 | 0,18 |
| *Society* | | | |
| Community (S01) | 0,67 | 0,71 | 0,65 |
| Corruption (S02-S04) | 2,17 | 2,35 | 1,29 |
| Public policy (approach to political parties/institutions) (S05-S06) | 0,58 | 1,41 | 1,47 |
| Anti-competitive behaviour (S07) | 0,17 | 0,59 | 0,12 |
| Compliance (S08) | 0,34 | 0,82 | 0,35 |
| *Product responsibility* | | | |
| Customer health and safety (PR1-PR2) | 0,92 | 1,00 | 0,65 |
| Product and service labelling (PR3-PR5) | 1,42 | 1,53 | 1,18 |
| Marketing communications (PR6-PR7) | 0,42 | 0,71 | 0,59 |
| Customer privacy (PR8) | 0,08 | 0,59 | 0,18 |
| Compliance (PR9) | 0,25 | 0,76 | 0,24 |

In the remaining reporting areas, Italy continues to be the benchmark. Chinese and US enterprises show similar attention in the area "Society" and "Product responsibility". Especially for China, this attention towards product responsibility derives from its special role as a manufacturing and exporting country, whose products are often perceived on the world market as low cost and poor quality. Chinese companies therefore use social reporting to obtain accreditation as producers of goods and services equal in quality to those of older industrialised nations.

Quality analysis of the sustainability reports was done by evaluating use of GRI indicators in the three macro-areas to be reported (economic, environmental and social). Results are shown in Table 4.

From a quality point-of-view, too, Italian companies demonstrate best practices compared with Chinese and American firms, thereby confirming previous studies (Krumwiede *et al.*, 2012).

**Table 4.** Qualitative analysis of social reporting in China, Italy and the USA, 2011 reports

| | China | Italy | USA |
|---|---|---|---|
| Economic perfomance indicators | | | |
| Economic performance (EC1-EC4) | 1,89 | 2,31 | 1,92 |
| Market presence (EC5-EC7) | 1,13 | 1,21 | 0,89 |
| Indirect economic impacts (EC8-EC9) | 0,88 | 0,74 | 0,93 |
| Environmental performance indicators | | | |
| Raw materials (EN1-EN2) | 1,19 | 1,18 | 0,73 |
| Energy (EN3-EN7) | 2,44 | 2,76 | 2,22 |
| Water (EN8-EN10) | 1,34 | 1,42 | 1,07 |
| Biodiversity (EN11-EN15) | 1,79 | 2,08 | 2,61 |
| Direct and indirect emissions (EN16-EN25) | 4,84 | 6,41 | 5,29 |
| Products and services (EN26-EN27) | 0,95 | 0,84 | 0,96 |
| Conformity (EN28) | 0,24 | 0,84 | 0,79 |
| Transport (EN29) | 0,18 | 0,35 | 0,25 |
| General (EN30) | 0,27 | 0,28 | 0,22 |
| Social performance indicators | | | |
| *Labour practices and decent work* | | | |
| Employment (LA1-LA3) | 1,33 | 1,85 | 1,17 |
| Industrial relations (LA4-LA5) | 0,68 | 1,58 | 0,60 |
| Health and safety at work (LA6-LA9) | 1,81 | 2,24 | 1,66 |
| Training and education (LA10-LA12) | 1,41 | 1,61 | 1,08 |
| Diversity and equal opportunity (LA13-LA14) | 1,11 | 1,28 | 0,73 |
| *Human rights* | | | |
| Investment and procurement practices (HR1-HR3) | 0,92 | 1,53 | 0,74 |
| Non discrimination (HR4) | 0,50 | 0,76 | 0,18 |
| Freedom of association and collective bargaining (HR5) | 0,42 | 0,53 | 0,24 |
| Child labour (HR6) | 0,50 | 0,65 | 0,35 |
| Forced and compulsory labour (HR7) | 0,58 | 0,65 | 0,29 |
| Security practices (HR8) | 0,04 | 0,12 | 0,15 |
| Indigenous rights (HR9) | 0,04 | 0,21 | 0,09 |
| *Society* | | | |
| Community (S01) | 0,57 | 0,62 | 0,57 |
| Corruption (S02-S04) | 1,86 | 2,05 | 1,14 |
| Public policy (approach to political parties/institutions) (S05-S06) | 0,50 | 1,03 | 1,09 |
| Anti-competitive behaviour (S07) | 0,08 | 0,29 | 0,06 |
| Compliance (S08) | 0,30 | 0,72 | 0,32 |
| *Product responsibility* | | | |
| Customer health and safety (PR1-PR2) | 0,43 | 0,48 | 0,31 |
| Product and service labelling (PR3-PR5) | 0,66 | 0,74 | 0,61 |
| Marketing communications (PR6-PR7) | 0,22 | 0,31 | 0,28 |
| Customer privacy (PR8) | 0,04 | 0,29 | 0,09 |
| Compliance (PR9) | 0,13 | 0,34 | 0,11 |

For all companies analysed, in absolute terms, the area where the greatest use was made of indicators was "Direct and indirect emissions".

In general, the macro-areas of social reporting that arouse the most interest are those with economic and environmental impact. In the macro-area of social impact, in particular, we see companies concentrating mainly on health and safety at work, employment, training and education. Crane and Matten (2007) suggest that ethical responsibilities enjoy a much higher priority in Europe than in the United States. In developing countries, however, ethics seems to have the least influence on the CSR issues. Reporting attention diminishes, on the other hand, for other "social" issues (“Human rights”, “Society and product responsibility”). In fact, it seems that further "investment" in these areas might improve relations between companies and consumers, raising the level of social reporting disclosure. This greater attention to environmental performance is characteristic of the energy sector, which pays less attention to product responsibility.

The general trends observed are further confirmed by analysis of each separate country. Nonetheless, some variations in detail can be observed.

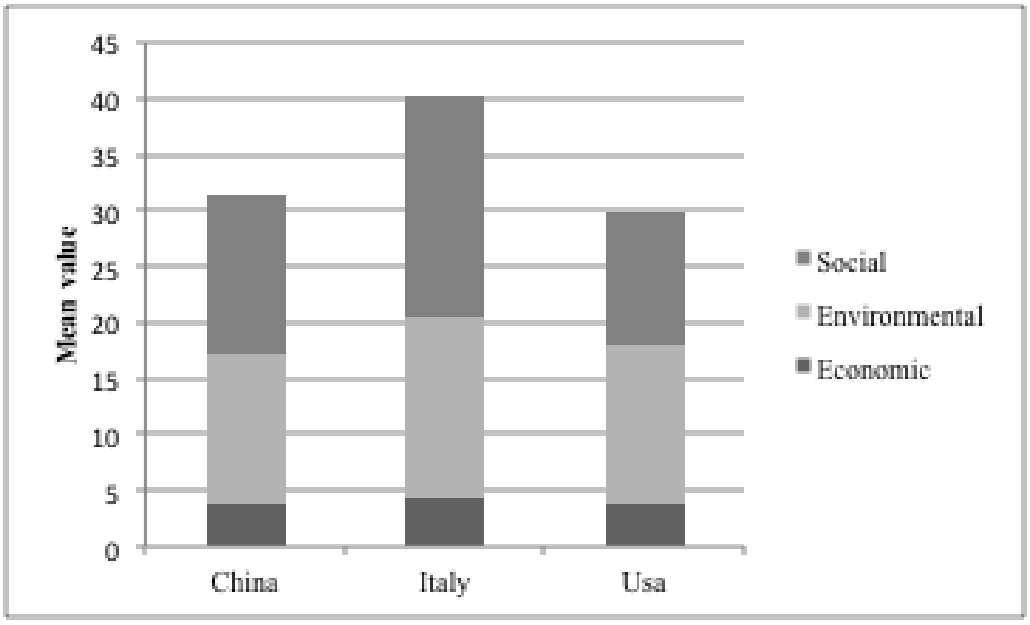
Italian companies show more attention to indicators for "Corruption". This may probably be

connected with the high perception, at international level, of widespread corruption in Italy. Companies consequently respond to this "accusation" by using indicators to prove their commitment to addressing the phenomenon and they show high levels of disclosure regarding this possible threat to their image. Results in this area are very similar to those of Chinese companies, probably for the same reasons discussed above.

China is the second of the countries analysed in terms of quality of social reporting with performance similar to the USA. Overall it does not show characteristics typical of a nation where social accountability is developing, especially if compared with benchmark countries like Italy. The Chinese companies studied already show a level of quality that, in the short term, might lead to results similar to those of benchmarking countries. In particular, social issues are frequently addressed by Chinese companies as they are “political slogans” proposed by the central government in recent years (Gao, 2011), while if we consider social reporting quality in the USA, social issues have a lower score. This confirms the Holder-Webb *et al.* (2009) study highlighting a lack of disclosure concerning these issues even if shareholders express a clear desire for this information.

Figure 1 is a graphic summary of points discussed above.

**Figure 1.** Mean values for economic, environmental and social macro-areas from Chinese, Italian and US companies




Our analysis was then extended to the previous two years (2009-2010) in order to evaluate qualitative trends in social reporting for the three countries (Table 5).

Firstly, it should be noted that numbers of companies studied over the three years vary for each of the countries involved. For China, 2009 reports were not available for 2 energy utilities companies. For Italy, reports were not available for 5 both in 2009 and 2010, while for the USA 7 companies had no reports in 2009 and 5 had none in 2010. Generally speaking, variability can still be observed in the application of social reporting, which is not always fully integrated into the reporting system.

China showed a decline in social reporting quality between 2009 and 2011 for “Environmental performance indicators” and a substantial stability in the Economic performance area. It should be noted that these same sections showed more use of impact indicators. On the other hand, their social performance indicators do not reveal a single trend, with overall improvement in "Society" and "Product responsibility".

Italy showed an overall positive trend in social reporting quality level between 2009 and 2011, especially for “Economic performance indicators” and “Social performance indicators”. Instead, Environmental performance indicators showed an inverse trend like that of Chinese companies.

Reporting quality by American companies returned variable results. Two clear trends can be observed in the better performance of "Product responsibility" and the decline of "Labour practice and decent work".

**Table 5.** Analysis of social reporting quality over a three-year period. 2009, 2010 and 2011 reports

| | China | | | Italy | | | USA | | |
|---|---|---|---|---|---|---|---|---|---|
| | **2009** | **2010** | **2011** | **2009** | **2010** | **2011** | **2009** | **2010** | **2011** |
| Economic perfomance indicators | | | | | | | | | |
| Economic performance (EC1-EC4) | 1,74 | 1,81 | 1,89 | 2,10 | 2,31 | 2,31 | 1,86 | 2,09 | 1,92 |
| Market presence (EC5-EC7) | 1,13 | 1,07 | 1,13 | 1,10 | 1,27 | 1,21 | 0,99 | 1,03 | 0,89 |
| Indirect economic impacts (EC8-EC9) | 0,88 | 0,85 | 0,88 | 0,75 | 0,76 | 0,74 | 0,86 | 0,93 | 0,93 |
| Environmental performance indicators | | | | | | | | | |
| Raw materials (EN1-EN2) | 1,27 | 1,30 | 1,19 | 1,27 | 1,15 | 1,18 | 0,43 | 0,64 | 0,73 |
| Energy (EN3-EN7) | 2,64 | 2,39 | 2,44 | 2,89 | 2,97 | 2,76 | 2,16 | 2,57 | 2,22 |
| Water (EN8-EN10) | 1,38 | 1,22 | 1,34 | 1,67 | 1,50 | 1,42 | 1,22 | 0,96 | 1,07 |
| Biodiversity (EN11-EN15) | 2,04 | 1,90 | 1,79 | 2,41 | 2,32 | 2,08 | 2,20 | 1,94 | 2,61 |
| Direct and indirect emissions (EN16-EN25) | 5,18 | 4,98 | 4,84 | 6,37 | 6,61 | 6,41 | 5,01 | 5,41 | 5,29 |
| Products and services (EN26-EN27) | 1,06 | 1,04 | 0,95 | 1,03 | 0,95 | 0,84 | 1,06 | 0,95 | 0,96 |
| Conformity (EN28) | 0,42 | 0,35 | 0,24 | 0,87 | 0,82 | 0,84 | 0,74 | 0,71 | 0,79 |
| Transport (EN29) | 0,12 | 0,10 | 0,18 | 0,32 | 0,31 | 0,35 | 0,30 | 0,27 | 0,25 |
| General (EN30) | 0,36 | 0,30 | 0,27 | 0,45 | 0,42 | 0,28 | 0,30 | 0,27 | 0,22 |
| Social performance indicators | | | | | | | | | |
| *Labour practices and decent work* | | | | | | | | | |
| Employment (LA1-LA3) | 1,50 | 1,38 | 1,33 | 1,64 | 1,70 | 1,85 | 1,17 | 1,20 | 1,17 |
| Industrial relations (LA4-LA5) | 0,64 | 0,75 | 0,68 | 1,37 | 1,43 | 1,58 | 0,77 | 0,85 | 0,60 |
| Health and safety at work (LA6-LA9) | 1,94 | 1,90 | 1,81 | 2,09 | 2,08 | 2,24 | 1,78 | 1,77 | 1,66 |
| Training and education (LA10-LA12) | 1,62 | 1,58 | 1,41 | 1,34 | 1,63 | 1,61 | 1,18 | 1,22 | 1,08 |
| Diversity and equal opportunity (LA13-LA14) | 0,93 | 1,06 | 1,11 | 1,16 | 1,43 | 1,28 | 0,84 | 0,63 | 0,73 |
| *Human rights* | | | | | | | | | |
| Investment and procurement practices (HR1-HR3) | 0,78 | 0,95 | 0,92 | 1,25 | 1,46 | 1,53 | 0,67 | 0,75 | 0,74 |
| Non discrimination (HR4) | 0,44 | 0,55 | 0,50 | 0,67 | 0,64 | 0,76 | 0,11 | 0,17 | 0,18 |
| Freedom of association and collective bargaining (HR5) | 0,44 | 0,45 | 0,42 | 0,42 | 0,50 | 0,53 | 0,33 | 0,33 | 0,24 |
| Child labour (HR6) | 0,56 | 0,55 | 0,50 | 0,50 | 0,64 | 0,65 | 0,33 | 0,38 | 0,35 |
| Forced and compulsory labour (HR7) | 0,56 | 0,55 | 0,58 | 0,50 | 0,64 | 0,65 | 0,33 | 0,50 | 0,29 |
| Security practices (HR8) | 0,06 | 0,05 | 0,04 | 0,08 | 0,07 | 0,12 | 0,17 | 0,25 | 0,15 |
| Indigenous rights (HR9) | 0,06 | 0,55 | 0,04 | 0,17 | 0,21 | 0,21 | 0,00 | 0,17 | 0,09 |
| *Society* | | | | | | | | | |
| Community (S01) | 0,57 | 0,80 | 0,57 | 0,65 | 0,69 | 0,62 | 0,59 | 0,66 | 0,57 |
| Corruption (S02-S04) | 1,62 | 0,55 | 1,86 | 2,15 | 2,22 | 2,05 | 0,78 | 1,02 | 1,14 |
| Public policy (approach to political parties/institutions) (S05-S06) | 0,48 | 0,05 | 0,50 | 0,78 | 0,96 | 1,03 | 0,87 | 1,05 | 1,09 |
| Anti-competitive behaviour (S07) | 0,06 | 0,33 | 0,08 | 0,29 | 0,36 | 0,29 | 0,06 | 0,08 | 0,06 |
| Compliance (S08) | 0,40 | 0,44 | 0,30 | 0,72 | 0,75 | 0,72 | 0,30 | 0,22 | 0,32 |
| *Product responsibility* | | | | | | | | | |
| Customer health and safety (PR1-PR2) | 0,49 | 0,44 | 0,43 | 0,40 | 0,45 | 0,48 | 0,44 | 0,41 | 0,31 |
| Product and service labelling (PR3-PR5) | 0,42 | 0,58 | 0,66 | 0,51 | 0,66 | 0,74 | 0,63 | 0,58 | 0,61 |
| Marketing communications (PR6-PR7) | 0,16 | 0,20 | 0,22 | 0,28 | 0,31 | 0,31 | 0,09 | 0,25 | 0,28 |
| Customer privacy (PR8) | 0,00 | 0,00 | 0,04 | 0,33 | 0,32 | 0,29 | 0,00 | 0,08 | 0,09 |
| Compliance (PR9) | 0,11 | 0,09 | 0,13 | 0,30 | 0,36 | 0,34 | 0,04 | 0,08 | 0,11 |

## 5. Conclusions

Despite this growing interest in social reporting, descriptive studies examining how companies build their reports are, to date, extremely scarce. Moreover, notwithstanding the proliferation of these reports, questions remain on the information they should contain and on how they should be structured (Davis and Searcy, 2010). This paper provides one of the first in-depth studies of social reporting quality between Italy, China and the US and it reveals the differences in quality levels of annual reports. Moreover, it provides a certain degrees of the situation about social reporting in these three countries and it is a response to the need for more CSR research in the context of developing countries compared with developed ones (Visser, 2009; Yang and Yaacob, 2012).

Another contribution of this study worth mentioning relates to the methodology used to assess social reporting quality. This research goes beyond previous studies by adding a proposal to evaluate social reporting quality using GRI indicators.

Our research examines the GRI indicators and evaluates the quality of social reporting according to these indicators. Italy confirms its benchmark position as its level of social reporting quality is higher than that of the US and China. Despite growing interest in social reporting, quality does not show an increasing

trend - China, Italy and the USA peaked in 2010, but in 2011 frequently did not reach the same levels, occasionally showing performance levels below those of 2009.

Even more surprising data on social reporting quality in China, show an inverse trend with quality levels dropping notably between 2009 and 2011.

In actual fact, Chinese utility service companies appear to pay attention only to certain aspects of social performance. So, while many companies report a lot of CSR information on many topics without having any major emphasis and direction, some companies pay too much attention to the key dimensions related to their business operations and touch on other CSR topics very lightly (Li and Xiang, 2007). According to stakeholder theory, these differences may be explained by the difficulty in identifying and balancing different interests of the various stakeholders, as sometimes some stakeholder groups take precedence over others (Dunfee, 2009).

The results show that there are numerous possibilities for future research in this area that might be developed, arising out of the very limits of this paper.

The main limitations of this study concern the companies analysed, as the population comes from a small group of utilities companies and therefore results cannot be assumed to apply generally. Secondly, many companies do not have their social reports certified by a third party. A recent research highlights differences in external verification of social reports, with 45% of European reports being externally verified, as opposed to 24% of Japanese reports and only 3% of American reports (Kolk, 2008). As a result, the possibility remains that companies may overstate their performance when disclosing social responsibilities.

We might also mention the difficulties in collecting data for social reporting linked to the Chinese language and the scarcity of diffusion of social reporting in general (Stray, 2008). According to a recent study, this may be explained by the fact that Chinese companies do not have good records on CSR, so prefer not to publish them (Gao, 2011). Moreover the Chinese media have not yet been able to develop a critical view toward business (ORSE, 2006), so many companies feel no pressure to publish their social reports. We believe it would be useful to carry out content analysis into the quality of what has been reported in CSR communications.

Lastly, it would be interesting to verify our results, extending analysis to other sectors, as information contained in CSR reporting has been shown to be very different from one sector to another.

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# AUSTRALIAN UNIVERSITIES AND INTELLECTUAL CAPITAL REPORTING: CASE STUDY: THE GROUP OF EIGHT

***Siavash Karami*, Alireza Vafaei*****

**Abstract**

Australian universities are the major exporter of higher education in the country. As knowledge producers, they face the challenges of globalization, and the financial resources needed to maintain their competitive advantage. The current funding systems that use traditional resources like students' fees and government grants are unable to meet these requirements. This could well force Australian universities to improve their structures; aiming for a higher international standard and recognition of a more visible and dynamic competitive system to attract funds. The purpose of this paper is to investigate the level of intellectual capital disclosure and the existence of any standalone intellectual capital report (ICR) by Australian universities. Four universities from the eight leading Australian universities known as the Group of Eight (Go8) have been chosen at random for this study. The universities in the Group of Eight compared to other Australian universities are highly research-concentrated and subsequently, have valued reputations.

Findings indicate that sample universities disclose some intellectual capital information via their annual reports. However, there has been no attempt, at the institutional or systems-wide level, to produce a standalone intellectual capital report (ICR) with standard indicators. In fact, a low rate of innovation, poor human resources and a weak relationship with business need a new managerial approach. Accordingly, results suggest a change within the current system.

This study strongly recommends Australian universities to utilize a universal framework for measuring, managing and reporting of intellectual capital information to meet the global and competitive challenges ahead. Currently, European universities – as Australian competitors - are required to disclose a standalone intellectual capital report to construct a harmonized national university system. Theoretical implications of this paper assist with the classification and search for appropriate indicators for measurement and disclosure of Intellectual capital in universities. The practical implication of this paper could be of interest to many different parties, such as institutional investors, managers, policy makers and university scholars.

**Keywords:** Intellectual Capital, Higher-Education, Australian Universities, Intellectual Capital Reporting

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## Introduction

The first aim of this study is to investigate the intellectual capital reporting in Australian universities. Intellectual capital (IC) developed and became a major driver for competitive advantage, not only for business but for universities and other service industries. Universities are the major players in knowledge producing and innovation systems. Investment in human resources and research are the most important factors to generate and develop knowledge and IC (Cañibano and Sánchez, 2004). A standard report that analyses these investments and reveals the details to the interested parties can help the management and measurement of IC. A comparable system to create a universal communication mechanism, and facilitates mutual relationships between different parties such as business, practitioners and academics is essential. Intellectual Capital Reporting (ICR) as a comparable index can create this link. How universities measure and manage their IC and which tools and resources can be used in effectively measuring IC to improve reporting and performance is the second focus of this paper.

The final scope and third area of focus to be examined is the relationship between accountability, transparency and IC disclosure.

## Definition of intellectual capital

The 21st century is recognised as the era of intangible assets and intellectual capital. Historically, an

organisation's value is measured by reference to their tangible assets, e.g., their physical capital, financial capital, returns on investment etc. This is recognised as a limited approach, which understates the true value of organisations, in particular, those concerned with services rather than physical outputs (Burton, 2001). Intangible asset terminology is derived from an accounting concept. Intellectual capital, on the other hand, is related to human capital and knowledge management. Both terms refer to the same intangible value in the employees' heads regarding their working capability to perform the task for an organization (Fazlagic, 2005).

A diversity of players, such as academics, accounting bodies, policy makers, managers and investors with different interests make it hard to have a universally accepted definition for IC (OECD, 2008). In addition, there are differences between practical realities and theoretical definitions and classifications. Stewart (cited in Bontis, 1996), defined IC as "the intellectual material that has been captured, formalized and leveraged to produce a higher-valued asset." Stewart (1997) classifies IC as a combination of Human Capital (HC), Structural Capital (SC) and Customer Capital (CC) (Figure 1).

The elements of IC:

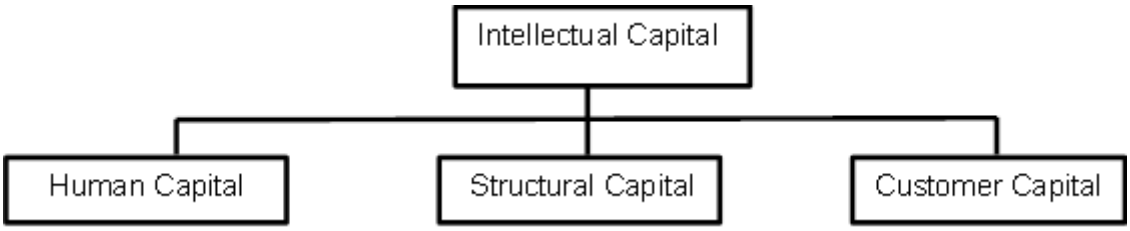


**Figure 1**. Elements of IC (Steward, 1997)

Human capital is "the individual's capability to provide solutions for their customers" (Stewart, 1997). Structural capital converts "know-how into the group's property; and customer capital allows relations with customers to be perpetuate" (Stewart, 1997).

The Organisation for Economic Co-operation and Development (OECD, 1999) defines IC as "the economic value of two categories of intangible assets of a company: (a) organisational ('structural') capital and (b) human capital" (OECD, 2008). Structural capital is later divided into internal and external capital (Schneider, 2007). This definition is regarded by some researchers as one of the practical definitions and classifies IC as Human capital, internal and external capital (Edvinsson and Malone, 1997; Kaplan & Norton, 1992; Petty and Guthrie, 2000; Roos, 1997; Stewart, 1997; Sveiby, 1997). This classification labelled as "*Intellectual Capital Approach"* is used by a number of companies and organizations (e.g., Skandia and Sys-Com) as an initial framework for measuring and reporting IC (Schneider, 2007). In summary, almost all definitions appear to be in agreement that intellectual assets are non- physical assets with three distinctive keys :1) potential for economic profits; 2) short in physical material; and 3) can be traded, retained by a firm, and generally include Research and Development (R&D), trademarks and patents (OECD, 2008).

This study considers the Intellectual Capital Approach as a platform for measuring Intellectual Capital Reporting (ICR) in the educational sectors. Table 1 shows the detail of three aspects of an Intellectual Capital Approach.

**Table 1.** Intellectual Capital Approach (Petty & Guthrie, 2000 cited in Schneider, 2007)

| Intellectual Capital Approach | Alternative label(s) | Description |
|---|---|---|
| Internal Capital | Organisational capital<br>Structural capital<br>Internal relations | Refers to the knowledge embedded in organisational structures and processes, and includes patents, research and development, technology and systems. |
| External Capital | Customer capital<br>Relational capital<br>External relations | Comprises elements of an organisation's patrimony-related customer relations: relationships with customers and suppliers, brand names, trademarks and reputations. |
| Human Capital | Employee competence | Refers to the set of all the knowledge and routines carried within the minds of the members of the organisation and includes skills/competencies, training and education, and experience and value characteristics of an organisation's workforce/employees. |

## Why study the intellectual capital reporting of a university?

Universities and other higher-education institutions need more financial resources to maintain their competitive advantage and face globalization challenges. The main reasons for measuring and disclosing the ICR of universities are:

Intellectual property rights in higher education needs to develop to a higher level than before. The current funding systems which use traditional resources like students' fees and government grants are unable to meet these requirements. Whenever public funds are engaged, full access to information is an essential right of stakeholders.

- Universities as knowledge producers are in the competitive market to attract funds. The main input and output of universities is knowledge, which consists of intellectuals (intangibles). Intellectual capital reporting (ICR) can give them a comparable index, and create a strong link between the industry and universities.
- A new comparable system can create a general language that facilitates a mutual relationship between business practitioner and academics (Fazlagic, 2005).

Furthermore, measuring and reporting IC can help to identify what does not work properly and to improve what works. The clearly defined set of indicators in the standard reporting accepted by universities and industries would not allow for any deficiency or low performance areas in the organization (Fazlagic, 2005). This can improve performance, measurements, assessment of intangible assets, and allocation of resources in the universities. There has not been any previous research for ICR in Australian universities. This study contributes to the existing literature and encourages IC disclosure as a good foundation for future research in higher education.

## How to measure the intellectual capital of a university

One of the methods used to measure the IC in a university is a framework (Measurement matrix) categorizing IC in the three forms of *Resources, Activities* and *Results* (developed by Danish Agency for Trade and Industry in Denmark, Cited in Fazlagic, 2005). Resources in a university are the number of staff and researchers, and the share of those researchers in a total number of employees. Activities are investment in human capital and relational capital. And Results are the objective achievement by resources and activities. Table 2 shows this framework (Measurement matrix cited in Fazlagic, 2005):

**Table 2.** IC Measurement matrix (Fazlagic, 2005)

| Types Categories | What is there? (Resources) | What has been invested? (Activities) | Which objectives have been achieved? (Results) |
|---|---|---|---|
| **Human Capital** | Number of researchers<br>Share of researchers in total employment<br>Average age of a researcher | Research spending per employee<br>ITC spending per employee<br>Time spent in internal seminars per employee<br>Training & inbreeding (share of researchers who are graduates of the university) | Number of newly recruited staff<br>Number of contracts turned down with regret<br>Staff satisfaction<br>Staff turnover<br>Added value per employee<br>Composite employee satisfaction index<br>Average number of publications per researcher |
| **Structural Capital** | Number of chairs (departments)<br>Average employment in a chair (department)<br>No. of PC per employee | Total investment in research infrastructure<br>Success ratio in project acquisition<br>Research spending per chair (department)<br>Participation in international conferences<br>(no. of conferences attended, no. of researchers attending conferences)<br>No. of research projects underway (including EU projects) | No. of international students<br>Share of international staff<br>Name recognition and reputation (based on press ranking lists)<br>Student satisfaction index<br>Number of students<br>Number of courses<br>Average number of publications per chair (department) |

The most significant output of a university is knowledge in the forms of new publications, research results and educated students (Leitner, 2002). Based on qualities of diverse outputs in the university, IC can also be measured. For instance: financial outputs like income and profit, and non-financial results such as organizational outputs (training courses, Research & Development, publications), as well as human-relationship outputs (client and user, staff/student, problem-solving ability and client satisfaction).

The natural steps to increase quality in higher education in a competitive and transparent way are measurement, management, and disclosure of IC (Sanchez, 2006). These factors are considered to contribute to the improvement in the core principles of the higher-education industry. IC has three major components in the universities: Human, Structural and Relational capital. Leitner (2002) offers a conceptual framework (Figure 2) for IC reporting in the universities, which consists of four main parts: "the goal, the intellectual capital, the performance processes and the impacts" (Leitner, 2002,). The model shows the intangible resources transformation process when delivering different activities like research, education and training, etc. The result of this process is a production of different outputs based on general and specific goals (Leitner, 2002).

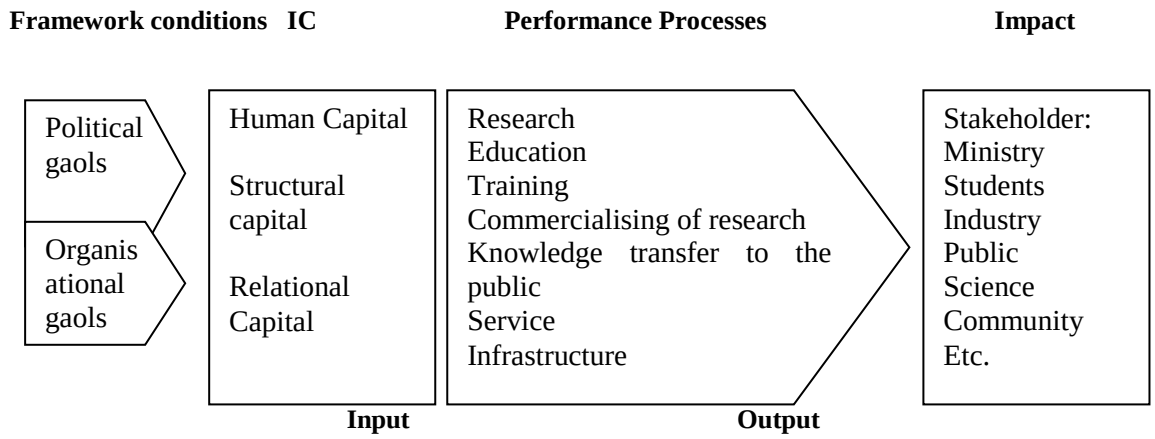


**Figure 2.** Model for IC Reporting in the universities (Leitner, 2002)

The organizational goals are guided by political agenda and educational ministry, which in Australia is based on the Australian educational policy. However, universities characterize their own goals. The IC in this model is divided into three elements of human, structural and relational capital. Human capital is the staff of the university; structural capital is the routine of the process system, and relational capital is the network and relationship between the researcher and business projects. The Leitner model outlined six performance processes – research, education, training, commercialising of research, knowledge transfer to the public, service and infrastructure – which can be developed and increased or decreased based on the university area of specification, such as Business School, Faculty of Education, Arts etc. These elements are mostly captured from the measures of process and output (Leitner, 2002). The achievements of these performance processes are measured in the category of Impact (result/effects). In this category the stakeholders of a university evaluate the performance on a quantitative basis. Thus, there is a need for a list of the indicators to be developed based on what was used in the universities, and what is proposed based on the literature and findings from the evaluation research (Leitner, 2002).

Sanchez (2006) suggests a list of the indicators (Table 3) which can be an initial framework within universities for disclosure of IC and to produce the IC University Reporting (ICUR). Many of these indicators have been gathered by universities for some years, and they are not totally new, such as the number of researchers, publications, patents etc. However, they have previously been gathered by an unsystematic method and spread through different parts of annual reports. ICR should be prepared as a new homogeneous information model, in a standalone document (Sanchez, 2006).

Sanchez's indicators were part of an intellectual capital university (ICU) report that he designed for the Observatory of European Universities (OEU) project to propose an IC disclosure pattern for universities. The report was fully tested at the Autonomous University of Madrid and partly tested on other OEU universities (Sanchez, 2009). It was a guideline that covers management strategy and internal policy, such as setting goals and visions to indicators for disclosure. The three parts of the Sanchez ICU report are:

"1) Vision of the institution, which aims to present the main general objectives and strategy and the key drivers to reach them. (2) Summary of intangible resources and activities, aiming to describe the intangible resources that the institution can mobilize and the different activities undertaken or plans to improve them. (3) System of indicators, aiming to allow the internal and external bodies to assess the performance and estimate the future of the institution correctly. Similarly, these indicators are classified into human, organisational and relational capital" (Sanchez, 2009).

Sanchez's guideline points out a university's vision and goals, reviewing them and considering how the activities produced can meet the objectives. Associating the vision of the institution with the measurement of IC can show what should be

measured and what should not, and it creates a structure for indicators. The indicators show what resources are priorities and subsequently what activities are launched. The indicators can provide the comparison in two ways: Among institutions, through comparing different organisations in a given period of time. Comparison along a time frame: for instance, it compares data through two different time periods. This comparison helps the public to observe progress in the performance of an organization based on the organizational objectives and goals (Sanchez, 2006).

The IC Report creation is a dynamic process, "in which the university may learn" (Sanchez, 2006). The reasonable conclusion of the IC report disclosure in the university seems to be communication between resources, strategy and stakeholders.

## Case study and Results

Eight leading Australian universities are joined together and have launched a highly research concentrated coalition known as Group of Eight (Go8). They have trained Nobel Prize winners and have high reputation in education and research. Four Australian universities from Group of Eight (Go8) are randomly chosen for this study. Using within-case and cross-case analysis indicate a gap between the setting of goals (vision) and accomplishment of these objectives (mission), which has a direct impact on the output for a university.

An institution's vision looks at and discusses what the organisation is and what it wants to be in the future (Sanchez, 2006). The mission statement indicates the institution's main strategy, objectives and the key factors (or vital intangibles) to achieve these objectives (Sanchez, 2006).

In the vision section, all four university cases indicate the importance of international growth and financial sustainability. The four sample universities' mission statements also signify attainment of international standards and recognition. However, the Go8 mission of statement only hints at global engagement, and does not mention the high achievement of international standards and recognition. Engagement in global issues and achieving international standards, especially at the highest level require the implementing of a similar reporting framework. This makes it clear why there is a need for a harmonized environment with international higher-education institutions and their reporting systems.

The content analysis of annual reports of each sample university reveals the majority of IC indicators based on the three above ICR Models (Fazlagic, Leitner, and Sanchez) are not addressed in their annual reports. Table 3 shows the disclosure of IC in the chosen cases (UniA is first university randomly chosen from Go8, the second one called UniB, third one named UniC and the last one labelled UniD) based on the Sanchez ICU Report model:

**Table 3.** The ICU Report (Sanchez, 2009)

| | Uni A | Uni B | Uni C | Uni D |
|---|---|---|---|---|
| ***Section 1. Vision of the institution*** | | | | |
| What are the main objectives of the institution? | ✓ | ✓ | ✓ | ✓ |
| What makes a difference with respect to other institutions? | ✓ | ✓ | ✓ | ✓ |
| What resources (human, organisational and relational) are needed to reach the objectives and provide the target services while ensuring quality? | ☐ | ☐ | ☐ | ☐ |
| How are those intangible resources related to the *value* of the institution? | ☐ | ☐ | ☐ | ☐ |
| What is the combination of tangibles and intangible resources that | ☐ | ☐ | ☐ | ☐ |
| creates *value*? | | | | |
| ***Section 2. Summary of intangible resources and activities*** | | | | |
| Which existing intangible resources should be strengthened? | ☐ | ☐ | ☐ | ☐ |
| What new intangible resources are needed? | ☐ | ☐ | ☐ | ☐ |
| What activities can be launched? | ☐ | ☐ | ☐ | ☐ |
| What activities should be prioritised? | ✓ | ✓ | ✓ | ✓ |
| ***Section 3. A system of indicators for IC resources*** | | | | |
| **Human capital** | | | | |
| Efficiency | | | | |
| 1. Total funds for research and development (R&D)/number of researchers. | ☐ | ☐ | ☐ | ☐F |
| 2. Number of PhD students/number of researchers? | ☐ | ☐ | ☐ | ☐NF |
| 3. Number of researchers / number of administrative personnel | ☐ | ☐ | ☐ | ☐NF |
| Openness | | | | |
| 4. Number of visiting fellows from other universities / number of researchers (per field), (A. national and B. international) | ☐ | ☐ | ☐ | ☐NF |
| 5. Number of PhD students coming from other universities / total number PhD students (per field) (A. national and B. international) | ☐ | ☐ | ☐ | ☐NF |
| **Organisational capital** | | | | |
| Autonomy | | | | |
| 6. Amount of resources devoted to R&D / total budget. | ☐ | ☐ | ☐ | ☐F |

| | |
|---|---|
| 7. Structure of the research budget by scientific fields (by disciplines). | ☐ ☐ ✓ ☐F |
| 8. Amount of budget constraints (personnel+ equip cost) / research Budget | ☐ ☐ ☐ ☐F |
| 9. Research budget managed at the central level / research budget. | ☐ ☐ ☐ ☐F |
| 10. Lump-sum for research (A. governmental funding and B. non-governmental funding) / total funding for research. | ✓ ✓ ✓ ✓F |
| 11. Share of staff appointed through autonomous formal procedure (at the university level +(consider procedures dealing with positions and academics). | ☐ ☐ ☐ ☐NF |
| 12. Non-core funding / A. total budget and B. budget for research. | ☐ ☐ ☐ ☐F |
| 13. Thresholds imposed to fund-raising (including weight of tuition fees on total budget and incentives given to private donors to support research activities) | ☐ ☐ ☐ ☐NF |
| 14. Structure of non-core funding | ☐ ☐ ☐ ☐NF |
| Codification of knowledge through publications | |
| **Table 3: The ICU Report (Sanchez, 2009)** | |
| 15. Number of publications by disciplines / total publications of the uni. | ☐ ☐ ☐ ☐NF |
| 16. Number of co publications per field, | ☐ ☐ ☐ ☐NF |
| (Six Frascati levels) (A. national and B. international). | |
| 17. Number of citations of publications by discipline / total uni publications. | ☐ ☐ ☐ ☐NF |
| 18. Share of specialisation publication in a discipline / total uni publications. | ☐ ☐ ☐ ☐NF |
| 19. Indicators of production for books, chapters, e-journals, etc. | ☐ ☐ ☐ ☐NF |
| 20. Indicators of visibility for books, chapters, e-journals, etc. | ☐ ☐ ☐ ☐NF |
| Codification of knowledge through intellectual property | |
| 21. Number of active patents owned by the university (by field). | ☐ ☐ ☐ ☐NF |
| 22. Number of active patents produced by the university (by field). | ☐ ☐ ☐ ☐NF |
| 23. Returns for the university; licenses from patents, copyright. | ✓ ✓ ✓ ✓F |
| 24. Joint IPRs (Intellectual Property Rights) by uni professors. | ☐ ✓ ☐ ☐NF |
| Strategic decisions | |
| 25. Existence of a strategic plan for research. | ☐ ☐ ☐ ☐NF |
| 26. Existence of mechanisms to evaluate the strategic research plan, Frequency, Brief description of the process. | ☐ ☐ ☐ ☐NF |
| **Relational capital** | |
| Spin-off | |
| 27. Number of spin-offs supported by the university. | ☐ ☐ ✓ ✓NF |
| 28. Number of spin-offs funded by the university and percentage above the total number of spin-offs (funded + supported). | ☐ ☐ ☐ ☐NF |
| Contracts and R&D projects | |
| 29. Number of contracts with industry (by field and by a competitive/non- competitive classification). | ☐ ☐ ☐ ☐NF |
| 30. Number of contracts with public organisations (by field and by a competitive/ non-competitive classification). | ☐ ☐ ☐ ☐NF |
| 31. Funds from industry / total budget for research. | ☐ ☐ ☐ ☐F |
| 32. Funds from public organizations / total budget for research. | ☐ ☐ ☐ ☐ F |
| Knowledge transfer through technology transfer institutions | |
| 33. Existence of a technology transfer institution. | ☐ ☐ ☐ ☐NF |
| 34. Checklist of activities of the TTI, Intellectual property management, Research contract activities, Spin-offs, Others. | ☐ ☐ ☐ ☐NF |
| 35. Budget of TTI / total university budget. | ☐ ☐ ☐ ☐F |
| Knowledge transfer through human resources | |
| 36. Number of PhD students with private support / total PhD students. | ☐ ☐ ☐ ☐NF |
| 37. Number of PhD students with public support / total PhD students. | ☐ ☐ ☐ ☐NF |
| Participation into policy making | |
| 38. Existence of activities related to policy making. | ✓ ✓ ✓ ✓ NF |
| 39. Checklist of activities related to policy making, Involvement into national and international standards setting committees, Participation in the formulation of long-term programs, Policy studies, Involvement in social and cultural life | ☐ ☐ ☐ ☐NF |
| 40. Existence of special events serving social and cultural life of society. | ☐ ☐ ☐ ☐NF |
| 41. Checklist of special events serving social and cultural life of society, Cultural activities, Social activities, Sport activities, others. | ☐ ☐ ☐ ☐NF |
| 42. Existence of specific events to promote science. | ☐ ☐ ☐ ☐NF |
| 43. Checklist of specific events to promote science, to classical involvement of researchers in dissemination and other forms of public understanding of science, Researchers in media, Researchers in forums, Others. | ✓ ✓ ✓ ✓NF |

Notes: F – financial indicator; NF – non-financial indicator.

The table shows only the Vision and Mission sections (section 1 and 2) have addressed some of the IC information, and that most of IC indicators were not addressed by any samples. The main reason is Australian universities still do not see a need for disclosure of IC based on unified and standard indicators as a common language. Although the content analysis of annual reports of each university shows that IC (specifically human & structural capital), to a limited extent, is reported. However, there is a lack of indicators and access to detail of IC for outside researchers and stakeholders. Furthermore, there is not a harmonized or a standard classification, which makes it difficult for the comparison. There is a need for a standard index (indicators) and common language to interpret the data for stakeholders**.** For instance, in all universities, total funds for research and development (R&D) and researcher staff numbers are disclosed in the financial reports. Yet, there is not any standard index to show the percentage of the R&D's funds to the researcher staff number in comparison to other cases.

## Conclusion

The assessment and reporting of IC have a relatively long history, and cannot be considered as a new one. However, the identification of a university IC and its links with input, knowledge production, processes and output in the university sector is a new idea. A description of a university's goals and strategies is an essential step for preparing the IC report. A framework for IC measurement and management within universities could identify and develop the culture to manage and report, as well as contributing to the demand for transparency. Leitner (2004) indicated: "proper management of IC at universities has a significant impact on the performance and efficient use of the invested financial funds." This paper recognizes the necessity for a new reporting system and harmonized framework for disclosure in Australian universities. In addition, it supports the concept of accountability, considerable assessment of, and concern regarding the activities of Australian universities.

Since the main input and output of universities are intangible, the disclosure of IC facilitates accountability to stakeholders. There are suggestions that by incorporating disclosure of IC items into the annual reports, accountability and transparency to stakeholders will be improved. This research has provided an initial insight into the extent and quality of IC disclosure in the annual reports of Australian universities. The area has been relatively unexplored in the literature both in terms of subject (IC reporting by universities) and situation (in Australia). Despite these limitations, this paper offers a valuable contribution to the research needed in this area, and recognizes a gap between the vision and mission of the Australian Universities. This study indicates a need for a framework through which IC disclosures can be made in the annual report of educational institutions and universities.

Results of this study show that IC disclosed by local universities is neither in harmony with European ICU guidelines nor is it comparable amongst the universities themselves. In addition, the information does not occur in a consistent framework. This paper also highlights areas that are not being adequately disclosed in reports. The IC disclosure index used in European studies can also be utilised by local universities. The framework can be used for future IC disclosures to ensure they are addressing the needs of their stakeholders.

These results have also revealed many potential areas for future research, including further studies on each of the independent indicators and their effect on IC investment. Another area for future research could be the relationship between ICUR and Results. A systematic investigation of the IC index can disclose which input and indicator are more significant in determining the higher-quality outputs, and whether the disclosure of a particular IC indicator has a positive relationship with the quality of the output.

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