HUMAN RESOURCE MANAGEMENT AND PERFORMANCE-RELATED WORKER SELF-EFFICACY: THE ROLE OF THE WORKER-ORGANIZATION RELATIONSHIP IN PORTUGUESE HOSPITAL WORKERS.

By

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Specialization in Human Resource Management

Supervised by
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To my parents,

for the constant reminder of what unconditional love and support are.
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Parts of this doctoral work have been published and communicated in conferences and papers.

Working Papers

International Conferences
Oral Presentations


National Conferences

Oral Presentations


Proceedings


Poster Presentations


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Invited lectures


Magazine and Newspaper Articles


Book Chapters

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- Amy Poehler, “Yes, please.”

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Abstract

The search for the causal links between human resource management (HRM) and organizational performance (OP) has dominated both the academic and practitioner debate and many authors suggest both constructs should be challenged to include multidimensional approaches. Recently, literature in HRM has been marked by an increased interest in worker perceptions; a growing number of authors propose that although intuitive, the relationship between HRM and OP is not a simple one, suggesting a mediation by workers’ attitudes, behaviours and beliefs (the “black box effect”).

Undoubtedly a knowledge and people intensive field, healthcare is of crucial importance in societies; yet, study on healthcare and hospitals’ HRM seems to be lacking.

This study addressed the above mentioned conceptual problems in an individual level by means of human resources’ issues management (HRIM, a construct encompassing traditionally considered HRM practices and issues that are not directly associated with HRM, yet are expressions of HR policies) and performance related observations of self-efficacy (PROSE, a proximal antecedent of worker performance, contributing to OP). We propose a mediation effect by the worker-organization relationship (WOR), a trifecta of job satisfaction, organisational commitment and organizational citizenship behaviour.

Structural equations modelling was used to test the hypotheses in a sample of 942 workers from a large Portuguese hospital. Results show that HRIM affects PROSE, and this relation is mediated by the WOR. Consistently with the literature, the most significant mediation effect in this relationship pertained to more intrinsic or emotional variables rather than extrinsic or bottom-line ones; this tendency seems to be stronger in clinical rather than non-clinical workers.

This study considers some of the most prevalent issues and propositions of the literature about the relationship between HRM and organizational outputs and provides a testable theoretical model. The fact that employees’ satisfaction with the HR practices and issues predicts attitudinal and behavioural outcomes has profound implications for research and practice, namely in the hospital context.

Keywords: Social Exchange Theory, Worker-Organization Relationship, Human Resources Management, Healthcare Context, Worker Perceptions of Performance.
Resumo
A busca da relação causal entre a gestão de recursos humanos (GRH) e o desempenho organizacional (DO) tem suscitado o interesse quer de um ponto de vista teórico, quer prático. Vários autores sugerem que estes constructos devem ser considerados de um ponto de vista multidimensional. Recentemente o interesse no estudo das percepções dos trabalhadores tem aumentado: cada vez mais autores defendem que embora a relação entre GRH e DO seja intuitiva, esta não é simples, sugerindo um efeito de mediação das atitudes, comportamentos e crenças dos trabalhadores (o “efeito caixa negra”).

A Saúde é uma área onde as pessoas e o seu conhecimento são fulcrais, sendo também ela mesma de fundamental importância para as sociedades; porém, o estudo da GRH na Saúde em geral e nos Hospitais em particular tem sido relativamente escasso.

Este estudo aborda os problemas conceituais referidos supra, a um nível individual, através de dois constructos: gestão de assuntos dos recursos humanos (GARH, que engloba quer aquilo que tradicionalmente se consideram práticas de GRH, quer assuntos que não sendo diretamente relacionados com esta, são expressões das políticas de GRH) e percepções de auto-eficácia do desempenho individual no trabalho (PAEDIT, um antecedente do desempenho individual que contribui para o DO). Propõe-se um modelo que relaciona estas duas variáveis contemplando um efeito de mediação da relação do trabalhador com a organização (RTO, uma medida composta de satisfação com o trabalho, comprometimento organizacional e comportamentos de cidadania organizacional).

Foram usados modelos de equações estruturais para testar as hipóteses numa amostra de 942 trabalhadores de um grande hospital português. Os resultados demonstram que a GARH afeta a PAEDIT e que esta relação é mediada pela RTO. Confermando a revisão de literatura, verificamos que a mediação mais significativa refere-se a variáveis mais intrínsecas ou emocionais do que extrínsecas ou monetárias; esta tendência parece ser mais prevalente em colaboradores(as) clínicos(as) do que não–clínicos(as).

Este estudo considera alguns dos temas e propostas mais prevalentes na literatura que relaciona a GRH com outputs organizacionais e desenvolve um modelo teórico testável. O facto de a satisfação dos trabalhadores com a GRH ser preditor de comportamentos e atitudes dos mesmos tem um profundo impacto quer para a investigação, quer para a prática, nomeadamente em contexto hospitalar.

Palavras-Chave: Teoria da Troca Social, Relação do Trabalhador com a Empresa, Gestão de Recursos Humanos, Contexto da Saúde, Percepções de Desempenho dos Trabalhadores.
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Abbreviations

AOC  Affective Organizational Commitment
AVE  Average Variance Extracted
CFA  Confirmatory Factor Analysis
CFI  Comparative Fit Index
COC  Continuance Organizational Commitment
CR   Composite Reliability
GFI  Goodness of Fit Index
HR   Human Resources
HRIM Human Resources’ Issues Management
HRM  Human Resource Management
HVB  Helping and Voice Behaviours
HVBS Helping and Voice Behaviours Scale
JS   Job Satisfaction
MSQ  Minnesota Satisfaction Questionnaire
NOC  Normative Organizational Commitment
OC   Organizational Commitment
OCB  Organizational Citizenship Behaviour
OCS  Organizational Commitments Scales
OP   Organizational Performance
PC   Psychological Contract
PROSE Performance Related Observations of Self Efficacy
PROSES Performance Related Observations of Self Efficacy Scale
RMSEA Root Mean Square Adjusted
RS   Recruitment and Selection
SEM  Structural Equations Model/Modelling
SET  Social Exchange Theory
SHRIM Satisfaction with Human Resources’ Issues Management
SHRIMQ Satisfaction with Human Resources’ Issues Management Questionnaires
SHRM Strategic Human Resources’ Issues Management
WOR  Worker-Organization Relationship
Chapter 1 - Introduction

“It doesn’t matter how slowly you are going, as long as you don’t stop”
- Confucius
Chapter 1 – Introduction

1.1. Purpose & relevance of the study

Over the past decades, research for the causal links between human resource management (HRM) and business performance has dominated both the academic and practitioner debate (Purcell & Kinnie, 2007; Kehoe & Wright, 2013): the present study aims at contributing towards this body of knowledge.

Many authors have dedicated their careers to understanding the connection between HRM and Organizational Performance (OP) that in some ways justifies the relevance of HRM in companies by making return on investment in HRM clearer. Scholars and practitioners have increasingly recognized the importance of effective people management and human capital for organizational performance (Bowen & stroff, 2004; Ferreira & Marques, 2014; Grant, 1996; Hitt, Biermant, Shimizu, & Kochhar, 2001; Nasurdin, Ahmad & Ling, 2015). In particular, strategic human resource management (SHRM) scholars have suggested that organizations can use performance and commitment-oriented human resource (HR) practices to drive organizational effectiveness (Becker & Gerhart, 1996; Dyer & Reeves, 1995; Wright, Dunford, & Snell, 2001) - a claim now supported by a large body of field research (e.g., Delery & Doty, 1996; Huselid, 1995; MacDuffie, 1995), as well as subsequent confirmatory reviews and meta-analyses of this literature (e.g., Combs, Liu, Hall, & Ketchen, 2006; Wright, Gardner, Moynihan, & Allen, 2005).

However intuitive this connection between how much a company invests and values their human capital through HRM and how well a company can do may be, empirical evidence has been elusive, and some authors go so far as to refer to this “happy-productive worker hypotheses” as the Holy Grail of HRM research (Fisher, 2003).

Although a few recent empirical studies have provided support for the claim that high-performance HR practices work most immediately through employee attitudes and behaviours—such as job satisfaction, affective commitment (Cohen, 2003; Gong, Law, Chang, & Xin, 2009; Takeuchi, Chen, & Lepak, 2009; Xerri & Brunetto, 2013), service-oriented citizenship behaviours, turnover (Sun, Aryee, & Law, 2007), and social exchange (Takeuchi, Lepak, Wang, & Takeuchi, 2007) – recent theoretical work on the HR–performance causal chain suggests that these studies may oversimplify the relation-
ships between HR practices and employee outcomes (e.g., Bowen & Ostroff, 2004; Nishii & Wright, 2008).

In this study we consider these claims and propose a more complex and ‘human’ encompassing way of linking the two elements as we explore other conceptualizations and mediators to this connection.

We argue that the explanation for the link between HRM and OP lays, to a great extent, in the individual point of view of the relationship between worker and organization and in worker perceptions (Kehoe & Wright, 2013), and that herein may lay some of the fundamental aspects of the “black box effect” - the process through which HRM practices affect behavioural outcomes (Becker & Gerhart, 1996; Nasurdin, Ahmad, & Ling, 2015). We will therefore explore the subject of the worker-organization relationship in a reciprocity theory and social exchange theory framework (Blau, 1964; Coyle-Shapiro & Conway, 2005; Gouldner, 1960; Homans, 1958), aiming at contributing to a better understanding of some of the psychological processes that may influence employee’s willingness to contribute to the OP (e.g. Kelley & Hoffman, 1997; Gould-Williams, 2003; Gyekie, 2005).

Variations regarding the relationships between HRM and OP across organizational forms and industry sectors are often disregarded (Bamberger, Bacharach & Dyer, 1989). This work aims at shedding additional light on the specificities of the healthcare context.

1.2. The healthcare context

“At the heart of each and every health system, the workforce is central to advancing health” (World Health Organization [WHO], 2006)

Organizational context differentiates the healthcare sector from other sectors (Prins & Henderickx, 2007): delivery of HRM in hospitals is a complex process throughout the world (Townsend & Wilkinson, 2010). Worldwide, hospitals are facing many challenges including increased costs, per capita decreases in government funding, technology that delivers both less invasive surgery (consequently capacity to perform more inpa-
tient procedures) and the capacity to deal with more complex medical interventions; also, healthcare systems that include hospitals have been under constant and continuing pressure to deliver quality improvements, better accountability, consumer choice and cost savings (Grimshaw, Rubbery, & Marchington, 2010; Kabene, Orchard, Howard, Soriano, & Leduc, 2006).

Organizations in the healthcare sector have the social responsibility to deliver care to citizens, which means that the work processes must be organized to meet the needs of the clients (van Wijk, 2007). As such, it is arguable that one important area of improving and maintaining service delivery as well as facing current challenges is through the hospital’s arguably most important assets: the people that work in hospitals, their human resources (HR).

Over recent years, the Portuguese healthcare system - not unlike the British healthcare system and others around the world (Kabene et al, 2006) – has been facing government promoted consumer choice, competition among service providers, quasi-market contracting and outright privatization that directly contradicts former public policies and generates some disruption of previous practices. These managerial practices have also had some reflections on HRM policies such as: establishment of individual contracts (instead of collective contractual agreements), non-public hire for public hospitals, changes in the performance appraisal system (e.g., implementation of the infamous SIADAP\(^1\) system) etc. Adding to these sector specific changes, economic instability has also proven to affect HRM in public hospitals, where career progression as been politically “frozen” and pay raises have been altogether stopped: salaries have even been cut down in different manners.

The afore mentioned situations can be a veritable recipe for disaster in HRM, and may lead to high levels of turnover, stress and burnout among healthcare workers (Gray & Philips, 1996), less involvement in safety procedures and practices (Gyekye, 2005) and even higher levels of mortality among patients (West, Guthrie, Dawson, Borrill & Carter, 2006), which makes it paramount that we increase our knowledge concerning HRM in the healthcare context as to better cope with situations such as these.

Around the world it is an undisputed fact that the health care sector is primarily a people

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\(^1\) SIADAP stands for “Sistema Integrado de Gestão e Avaliação de Desempenho na Administração Pública” (Integrated System for the Performance management and Appraisal in Public Service).
oriented, labour intensive sector, since the workforce in most healthcare organizations directly provides the services to the clients - which means that the workforce is the most critical organizational input (Buchan, 2004; Prins & Henderickx, 2007; van Wijk, 2007; West, Guthrie, Dawson, Borril, & Carter, 2006). Within many health care systems worldwide, increased attention is being focused on HRM (Kabene et al., 2006).

Human resources have been described as “the most important aspect of health care systems” (Narasimhan et al., 2004, p. 1469), “the heart of the health system in any country” (Joint Learning Initiative, as cited in Hongoro & McPake, 2004, p. 1451), and “a critical component in health policies” (Dussault & Dubois, 2003, p.1). Thus, healthcare organizations are highly dependent on the workforce (Dussault & Dubois, 2003). As a result, HRM is particularly important, because HRM can encourage the performance of the workforce (Prins & Henderickx, 2007; van Wijk, 2007), and a well motivated and appropriately skilled and deployed workforce is crucial to the success of the delivery of healthcare (Buchan, 2004): in recent years, it has been increasingly recognized that HRM is important in the healthcare sector (Prins & Henderickx, 2007) as there is a reasonable expectation of a strong connection between HR and health care organizations in terms of culture but also performance.

The relationship between HR and healthcare organizations is very complex, and its study should be encouraged (Kabene et al., 2006). This is often complicated because of many circumstances, such as multiple employers (many healthcare workers have more than one job in different organizations) and a very diverse workforce (including clinical and non-clinical workers (WHO, 2000) that includes separate occupations often represented by powerful professional trade unions (Buchan, 2004; Prins & Henderickx, 2007); in the Portuguese context other political and economic factors can be included, such as a strong organizational culture in the public sector that is very different from the private sector, and that has managerial implications in the movement of privatization of healthcare. Thus management of what is meant to be a joined-up healthcare experience can be potentially confusing and subject to multiple influences (Townsend & Wilkinson, 2010).

Adding to these circumstances, Townsend and Wilkinson (2010) state that a range of factors limits research in healthcare HRM. Firstly, a lack of diverse methodological approaches limits our ability to understand the complex social and institutional dynamics
involved in managing HR in hospitals (e.g., the vast majority of studies address only one type of professionals or one sector/ward of the hospital). Secondly, structural and organizational aspects of hospitals that are important in measuring performance seem to be systematically overlooked (e.g., organizational performance is difficult to materialize in most cases; it is hard to establish a comparison for performance even among the same type of jobs – e.g., a nurse in intensive care vs. a nurse in ambulatory surgery; administrative assistants are usually evaluated by an administrative supervisor that does not work with them because they are spread through different departments/wards in the institution, etc.).

Among the proposals for future research that address these issues in the study of the linkage between HRM and OP in hospitals, authors have been proposing single institution studies in order to study the HRM-performance linkage, while eliminating parasite variables that can occur when comparing hospitals (e.g., different organizational culture, organizational policies, etc.) (Nishii & Wright, 2008; Veld, Paauwe, & Boselie, 2010).

Also, Wright and Nishii (2004) build a strong argument for making a clear distinction between intended HR practices (those designed on a strategic level), actual – or implemented – HR practices (those implemented by, for example, the direct supervisor), and perceived HR practices (those perceived by the employees). These three realities can have an almost separate existence: considering this may help us understand why some HRM policies and practices that theoretically seem to make perfect sense, sometimes backfire.

This perspective strikes an especially relevant chord in terms of organizational theory but also research methodology, since what the manager intends to implement may be opposite to what employees perceive and even what is actually done – this also means that depending on the research design, studies may be looking at the same reality with very different perspectives and results. In this study we address this issue by specifically basing our research on employee perception, based on the Thomas Theorem: if people define situations as real, they are real in their consequences (Merton, 1995).

All these elements explain to some extent the fact that, although healthcare is an essential service, with knowledge intensive characteristics, research about HRM in hospitals seems to still be lacking because of contextual and methodological issues. The present
research addresses some of these challenges by considering using one single institution in healthcare and including all types of hospital workers, through in an individual level analysis.

1.3. Roadmap for this work

We will proceed with the literature review, starting with some considerations on the satisfaction and perceptions of human resources’ issues and its paramounting importance in the field of HRM; we then will discuss some essential aspects of organizational performance and performance related worker self efficacy, especially in hospitals and healthcare. We will conclude our literature review by exploring the subject of the worker-organization relationship in the framework of reciprocity and the social exchange theory, focusing on three important components of this relationship: job satisfaction, organizational commitment and organizational citizenship behaviours.

After introducing and contextualizing our major constructs we will then formulate our research questions, theoretical model and hypotheses before the empirical section.

In the empirical section, methodological procedures and options will be explained, data collection procedures detailed, psychometric instruments will be shortly presented and validated. Sample will be described prior to the results section, where results concerning data exploration, hypotheses testing and model testing will be shown in a comprehensive matter. The discussion of results closes the empirical section.

The last section of this work is the conclusion where the main ideas will be recapitulated, and implications for the practice, limitations and future research in this area are discussed.

Figure 1.1 introduces the structure and organization of this work in a graphic manner.
Figure 1.1. Structure and organization of this research
Chapter 2 – Satisfaction with Human Resources’ Issues Management

“You argue complexity as an excuse for inaction?”
– Claire North, “The first fifteen lives of Harry August”
Chapter 2 – Satisfaction with Human Resources’ Issues Management

“Healthcare organizations are the most complex form of human organization.”
(Golden, 2006)

2.1. Perceptions of Human Resources’ Issues Management

Human resource management (HRM) practices have been recognized as an important factor in developing sustainable competitive advantage across sectors (Kydd & Oppenheim, 1990; Lado & Wilson, 1994; Pfeffer, 1998), including the healthcare sector (Prins & Henderickx, 2007; van Wijk, 2007).

In the case of the healthcare sector and specifically hospital workers, authors like West et al. (2006) and Buchan (2004) discuss impactful HRM practices following Pfeffer’s (1998) work on ‘high commitment’ or ‘high performance’ HRM practices, and suggest that HRM that truly impacts performance in the healthcare includes both more traditional/technical aspects of HRM (namely, performance appraisal/management, training, employment security, staffing [recruitment/selection] and compensation), and also areas of action that aren’t exactly HRM practices, but represent issues that can be highly associated with HRM policies (decentralization, participatory mechanisms, team-based structures).

The perception of good teamwork, for instance, has been associated with safety attitudes and innovation in postoperative outcomes (Haynes et al., 2011), whereas a significant proportion of adverse events has been attributed to inadequate team-based skills such as communication, leadership, situation awareness and resource utilization (Petrosoniak & Hicks, 2013); training techniques that promote the development of shared mental models for team and task processes, address the effect of acute stress on team performance, and integrate strategies to improve clinical reasoning and the detection of cognitive errors have been proposed as a way to significantly increase team and task performance in the healthcare sector (Petrosoniak & Hicks, 2013). Furthermore, HRM practices are associated with positive effects on the behaviour of healthcare staff where they enhance autonomy and employee participation in change and innovation (Patterson et al., 2005).

This to say that although technical HRM has been increasingly regulated through stakeholder’s expectations since it reportedly benefits administration, employee relationships, and health and safety (Huselid, Jackson, & Schuler, 1997; Schuler, 1992), recent research has concluded that technical HRM alone may not have good predictive power.
to explain organizational performance in healthcare (Yang & Lin, 2014). HRM is commonly defined as a set of employee management activities, but there is no consensus regarding which HR practices should be included in a ‘comprehensive HRM checklist’ (Boselie, Dietz, & Boon, 2005), which led us to use the expression of Human Resources’ Issues Management (HRIM), as a term that clearly encompasses technical and non technical HRM, as to promote conceptual clarity.

The work of several authors has explored what type of HRIM practices most impact performance in the healthcare.

Nasuridin and colleagues (2015) suggest four main areas: selective hiring (the rigor of hiring as indicated by applications per vacancy), communication (the activities that provide employees with sufficient and useful information about their work), appraisal (the evaluation and feedback process about employees’ performance based on some prede-termined organizational standards) and reward (all forms of financial returns, tangible services, and benefits that an employee receives as part of an employment relationship).

Vermeeren and colleagues (2014), in a large study in the healthcare context, chose five indicators that are often used in HRM and performance research: training and development, performance related pay, teamwork, job design, and autonomy.

West and colleagues (2006) and Buchan (2004) explore the dimensions of impactful HRM practices following Pfeffer’s (1998) work on ‘high commitment’ or ‘high performance’ HRM practices, and indicate that the areas of HRM that most have an impact in performance in the healthcare context are: performance appraisal/management, training, decentralization, participatory mechanisms, team-based structures, employment security, staffing (recruitment/selection) and compensation.

Although the effects of a company’s overall HR practices, or HR bundle, have been extensively examined, the effects of employees’ overall perception of HR effectiveness have rarely been studied (Chang, 2005). This might be due to the fact that perception is classically a construct approached by Psychologists whereas HRM is mainly a management field.

Recently the notion emerged that the perceptions of employees regarding HRM can be as important as the HRM practices themselves (e.g., Wright & Nishii, 2008). Empirical
Evidence has been gathered by various authors in the past 15 years or so to explore this idea, as we will exemplify next.

In a study with circa 2000 security workers, Boselie and van der Wiele (2002) concluded that positive perceptions of individual employees on the HRM concepts lead to a higher level of satisfaction and less intention to leave the organization; Bowen and Ostroff (2004) developed a study about strong HRM systems and focused on climate because of their interest in multilevel relationships, since both psychological climates as individual-level perceptions and organizational climate\(^2\) as a shared perception at the firm level have been positioned as mediators of the relationship between HRM practices and performance (e.g., Ostroff & Bowen, 2000 as cited in Bowen & Ostroff, 2004). Their work has been considered “groundbreaking in their acknowledgement of the role employee perceptions play in translating HR practices into desired organizational outcomes” (Nishii, Lepak, & Schneider, 2008, p. 508).

Other studies include Chang’s (2005) attempt to examine the construct of employees’ overall perception\(^3\) as one of the possible mechanisms by which the HRM influences employees’ attitudes. Results indicated that employees may readily perceive a certain practice to be effective if they have perceived other HR practices as effective, and their attitudes may be strongly influenced by the consistency of their perceptions. The author also points out that the other side of the coin is that a salient negative perception can undermine other effective practices. We will finally point out Nishii et al.’s (2008) introduction of the construct of HR attributions; these authors argue that the attributions employees make about the reasons why management adopts certain HR practices have consequences for their attitudes and behaviours, and ultimately, unit performance. These authors proclaim that although a number of scholars have suggested that employees’ interpretations or attributions of HR practices are likely to play an important role in influencing the ultimate effect of HR practices, their study is among the first to provide

\(^2\) Organizational climate is a shared perception of what the organization is like in terms of practices, policies, procedures, routines, and rewards, what is important and what behaviors are expected and rewarded (Bowen & Ostroff, 2004) – so, although this argument meets the point that we are trying to make: that employee and group perceptions can play an important role in organizational outcomes, the construct of organizational climate does not fit our interests per se, in a sense that it is too wide.

\(^3\) According to Chang (2005) employee overall perception, the employee’s beliefs about diverse aspects of HR practices, and consideration of diverse beliefs about an object in shaping an individual’s overall attitude can be traced back to the Fishbein model (Fishbein as cited in Chang, 2005). This model has mainly had application in customer behavior theory, depicting that when an individual holds beliefs towards more than one aspect of an object, the overall attitude is influenced by a summation of the product of each belief and evaluation regarding the belief.
Hence, employee perception of HRM practices seems to be gaining new ground and attention from scholars with the added methodological benefit that individual measurements, when done in a significant sample are statistically more robust and offer different possibilities of studying organizational issues, due to the sheer large sample size possibilities (Paauwe, 2009). This allows for the inclusion of a broader scope of practices and other methodological procedures in variables collected by the Organization, as previously mentioned.

Thus it is fair to say that this study focuses on perceived HRM, following the Thomas Theorem: if people define situations as real, they are real in their consequences (Merton, 1995), which is to say that if employees believe that specific HR practices are employed in the organization, they will act according to that belief (Vermeeren et al., 2014).

2.2. Satisfaction with Human Resources’ Issues Management

In this context we are approaching the affective side of perception (Cupach, Canary & Spitzman, 2009) by inquiring employees about their satisfaction with HRIM. By approaching the matter thusly, we expect to register not only the rational perception of HRIM but mostly how subjects feel and relate to it in a more positive or negative matter, the side of perception that will most likely be related with how subjects construct their relationship with the organization and how much they are willing to invest in their job.

In the last decade scholars have been concerned with the precise nature of the mechanism linking HRM and performance outcomes (the ‘black box’, i.e., the mediating link between HRM and performance). In recent years, many suggestions have been made regarding the nature of this ‘black box’, but many scholars emphasize the perceptions and experiences of employees as the main linking mechanism (Boselie et al., 2005; Bowen & Ostroff, 2004; Nishii & Wright, 2007). HR practices forge a psychological contract between employer and employee that in turn affects these perceptions and experiences (Coyle-Shapiro & Kessler, 2002).

The importance of this question is based on the rationale that prompted this study: that attitudes are likely to precede and predict behaviours (Ajzen & Fishbien, 1980), thereby
suggesting that behaviours’ attitudinal antecedents are important points of focus and measurement.

**Conclusion**

One of the main goals of Human Resource Management (HRM) is to increase the performance of organizations (Paauwe, Wright, & Guest, 2013; Vermeeren et al., 2014).

In the last two decades, several studies on HRM and performance have been conducted in the health care sector (El-Jardali, Tchaghchagian, & Jamal, 2009; Vasset, Marnburg, & Furunes, 2011). In their review of health care studies, Harris et al. (2007) concluded that HR practices are often related to patient oriented performance outcomes. They also noted the importance of conducting additional research on the ‘black box’ issue. Furthermore, many health care studies relate HRM to organizational and HR related outcomes (Chuang, Dill, Morgan, & Konrad, 2012; Cole et al., 2005; Lee & Kang, 2012; Scotti, Harmon, & Behson, 2007; Vermeeren et al., 2014; Weinberg, Avgar, Sugrue, & Cooney-Miner, 2013).

HR practices provide employees with concrete evidence of the organisation’s intent to anticipate and meet their needs (Armstrong-Stassen & Schlosser, 2010). When an organisation engages in HR practices that reflect investment in, and support of its employees, it signals that the organisation is seeking to continue a social exchange relationship with its employees (Allen, Shore, & Griffeth, 2003).

No single agreed, or fixed, list of HR practices or systems of practices exists to measure HRM (Guest, 2011; Paauwe, 2009) and the heterogeneity of medical subcultures across different organisations suggests that a single HRM model is unlikely to be effective throughout the NHS, indicating the need for local development of this or any HRM framework (Trebbe, Heyworth, Clarke, Powell, & Hockey, 2014).

Thus, we chose to approach this question from the perspective of an inclusive construct of HRIM (including technical and non technical aspects of HRM) and from the point of view of worker perceptions, namely satisfaction with HRIM, as a more adequate way to construe the idea at hand.
Chapter 3 – Worker-Organization Relationship

“Money can be exchanged quickly, but love takes time”
- Foa & Foa as cited in Coyle-Shapiro & Conway, 2005

“With a secret like that, at some point the secret itself becomes irrelevant. The fact that you kept it does not.”
- Sara Gruen, “Water for Elephants”
Chapter 3 – Worker-Organization Relationship

“The nature of the employment relationship has been an important but amorphous topic since probably the very first time one individual struck bargain with another, trading labour for otherwise inaccessible valued outcomes” (Coyle-Shapiro, Shore, Taylor, & Tetrick, 2005, p.1).

In 1981, Clark (as cited in Coyle-Shapiro et al., 2005) pointed out that labour and capital are in perpetual conflict over two issues: control of the production process and the conditions of employment. Although conflict is an intrinsic component of the relationship between between labour and capital (the two sides of the employment or worker-organization relationship) both seek contractual agreement and reconciliation. No side wins if it completely breaks the power of the other. It is through the employment relationship, that reciprocal rights and obligations are created between the employee and the employer. This relationship has been the main vehicle through which workers gain access to the rights and benefits associated with employment (International Labour Conference [ILC], 2005).

Thus it is almost intuitive a certain give-and-take in this relationship: that is the fundament of the Social Exchange Theory (Blau, 1964; Coyle-Shapiro & Conway, 2005; Gouldner, 1960; Homans, 1958). Social Exchange Theory (SET) has been used to examine a variety of organizationally desired outcomes and to examine how employees view their relationships with their employer in different cultures and in different contractual arrangements. Overall, the empirical evidence seems to support the universality of social exchange as a framework for understanding the employment relationship (Shore & Coyle-Shapiro, 2003).

3.1. Social Exchange Theory and Reciprocity

“Human social interaction is rarely guided by pure reason. Instead, in situations in which humans have the option to cooperate, to defect, or to punish non-cooperative behaviour of another person, they quite uniformly tend to reciprocate ‘good’ deeds, reject unfair proposals, and try to enforce obedience to social rules and norms in non-cooperative individuals (‘free-riders’), even if the punishment incurs costs to the punisher.” (Wischniewski, Windmann, Juckel, & Brüne, 2009, p.1)

Although the seminal works on Social Exchange Theory (SET) date back from the 1960’s (e.g., Blau, 1964; Homans, 1958; Thibaut & Kelly, 1959), in the past few years
it has seen its popularity boost in a number of social sciences as is the example of employee relations (Coyle-Shapiro et al., 2005), project teams (Lin & Huang, 2010), psychopathology and neuroscience (Wischniewski et al., 2009), tourism (Ward & Berno, 2011) and marketing (Kingshott, 2006).

Cooperation between genetically unrelated individuals is a quite unique trait in humans. This characteristic has biological consequences, since it favours the natural selection of individuals who exhibit it (Fehr & Rockenbach, 2004; Jensen, Call, & Tomasello, 2007), such that universally accepted rules of social exchange evolved as “the decisive organizing principle of human society” (Nowak, 2006) and several studies have confirmed as crucial in developing and maintaining relationships (Uhl-bien & Maslyn, 2003).

SET is rooted in Barnard’s (1938) theory of equilibrium (an economic theory) and was modified by Thibaut and Kelley (1959) for the study of the social psychology of groups. The exchange model proposed by Barnard (1938) and later revised by March and Simon (1958) posited that individuals exchange their contributions for certain inducements that the organization provides. Subsequently, Blau (1964) distinguished between social and economic exchange that differ, among other things, on the nature of the inducements being offered by the organization; economic exchange emphasizes the financial and more tangible aspects of the exchange while social exchange emphasizes the socio-emotional aspects of the exchange (Shore, Tetrick, Lynch, & Barksdale, 2002). Thus, SET focuses on the perceptions of the relative costs and benefits of relationships and their implications for relationship satisfaction.

According to the social exchange theory (Blau, 1964), positive, beneficial actions directed at employees by either the organisation and/or its representatives (e.g., supervisors) contribute to the establishment of high-quality exchange relationships that create obligations for employees to reciprocate in positive, beneficial ways (Settoon, Bennett, & Liden, 1996). Social exchange theorists have viewed the employment relationship as an exchange of tangible and intangible benefits (Coyle-Shapiro & Conway, 2005). As such, it is the emphasis on the exchange of the intangible benefits that differentiates social exchange from economic exchange. Eisenberger, Huntington, Hutchison, and Sowa (1986) propose that fulfilling important socio-emotional needs in the workplace is similar to fulfilling individual needs for respect, caring, and support in interpersonal
relationships.

SET has been in the origin of several organizational constructs such as organizational support theory or psychological contracts.

Organisational support theory (Eisenberger et al., 1986) posits that employees develop global beliefs concerning the extent to which their organisation values their contribution and cares about their well-being. Employees interpret such support by the organisation as demonstrating the organisation’s commitment to them, creating an obligation to repay the organisation for its commitment and caring. Prior research has found a strong positive relationship between perceived organizational support and affective organizational commitment (e.g., Meyer & Smith, 2000; Rhoades & Eisenberger, 2002).

Some authors state that perceived organizational support fulfills the need for self-esteem by communicating recognition of employees’ contributions (Armeli, Eisenberger, Fasolo, & Lynch, 1998), the need for emotional support by signalling to employees that the organization can be relied upon to help when required, and the need for social approval by communicating that they are adhering to organizational norms. Therefore, a social exchange perspective on the employment relationship goes beyond the exchange of tangible benefits to include the fulfillment of socio-emotional needs.

As Rousseau and Tijoriwala (1998) note, “central to the workings of psychological contracts is the interplay between employee and employer obligations, their relative magnitude and contingent relations”. (p. 692).

Rousseau (1989) argues that in the exchange relationship, there is a belief “that contributions will be reciprocated and that ... the actions of one party are bound to those of another”. (p. 128). The idea of reciprocation draws on the work of Blau (1964), who argues that the exchange partners will strive for balance in the relationship and, if imbalance occurs, attempts will be made to restore the balance. Furthermore, Morrison and Robinson (1997) highlight the centrality of reciprocity, by arguing that “violation [of the psychological contract] comes not only from the organization’s presumed failure to reciprocate goods and services as promised, but also from its presumed failure to live up to the norms and standards of reciprocity and goodwill that govern the relationship”. (p.248).
In line with Rousseau’s (1989) conceptualization, perceived obligations and the extent to which those obligations are fulfilled represents the essence of the psychological contract. Perceived obligations set behaviour within the exchange. Empirically, numerous studies have demonstrated that employees reciprocate perceived employer contract breach (obligations—fulfilment of obligations) by reducing their commitment to the organization (Coyle-Shapiro & Kessler, 2000), lowering their trust in the employer (Robinson & Rousseau, 1994), reducing their performance (Robinson, 1996), and withdrawing organizational citizenship behaviour (Robinson & Morrison, 1995). The emerging conclusion, therefore, is that employees reciprocate treatment by the employer by adjusting their attitudes and behaviours. Results show that the instruments adopted in this study are valid and reliable accordingly (Coyle-Shapiro & Kessler, 2002).

Current employee relations literature depicts psychological contract to comprise of an individual’s belief that certain promises have been made by the other party (Robinson, 1996; Rousseau, 1989, 1995) and these act as strong psychological bonds between the parties (Anderson & Schalk, 1998) because they reflect communications of future intent between them (Morrison & Robinson, 1997).

Despite deriving from a field outside HRM (namely, Psychology), the psychological contract has been gaining protagonism in the HRM related literature. Contributing to this is the usefulness of the concept for understanding what employees and employers expect of a job and a work environment, including not only expectations of tenure or promotion but also sense of entitlement to work-life benefits and flexible working arrangements. Although it is clear that the psychological contract is a relationship between employee and employer (the organization on its agents – the leader, supervisor, CEO, etc.), most research has been focusing on the employee side of this equation (Coyle-Shapiro & Kessler, 2002). Because reciprocation is at the very heart of the construct, psychological contracts can contribute in understanding how Organizational Policies and Practices affect employee’s attitudes, feelings and behaviors.

4 Although Argyis (1960) and Levinson, Price, Munden, and Solley (1962) are credited with using the term “psychological contract”, subsequent contributors have conceptualized the construct in significantly different ways (cf. Roehling, 1996; Rousseau, 1995). Briefly, the construct has evolved from mutual expectations to reciprocal obligations yet the core idea of reciprocity in the exchange is visible throughout this development. As Argyis notes, “the employee will maintain the high production, low grievances ... if the foreman guarantees and respects the norms of the employee informal culture” (1960, p. 97).
Psychological contracts have been shown to be highly significant within the employment context because they help the employee frame the relationship and this serves to guide their behaviour. It should be noted that the psychological contract is distinguishable from the normative contract (Rousseau, 1995) because it resides in the mind of the individual and can therefore act as double-edged swords because it also offers the potential to engender dispute and disagreement between parties (Rousseau & Mclean-Parks, 1993). By showing the positive and negative implications of psychological contracts this rapidly growing body of knowledge has been an important aspect in helping managers to understand the employment relationship.

To ensure a lack of confusion between the individual nature of psychological contracts and the universal nature of the need to reciprocate, Rousseau (1995) makes clear the distinction between relational rules or norms and psychological contracts arguing that norms are likely to come into existence when the psychological contracts of parties overlap. Psychological contract breach may help explain the deleterious consequences of organizational restructuring on employee health and well-being and has been associated with insomnia and psychological distress (Garcia, Bordia, Restubog, & Caines, 2015), general reorganization involving downsizing, mergers & acquisitions is associated with psychosomatic complaints (Campbell-Jamison, Worrall, & Cooper, 2001), increased mental health problems (Probst, 2003) and physical health impacts such as muscular-skeletal, cardiovascular disease and mortality (Kivimäki et al., 2006). However, it is believed that supportive relationships may buffer the effects of reduced inducements (at least in the short term).

It is undisputed that norms constitute shared expectations and values that help guide patterns of appropriate behaviour (Joshi & Arnold, 1997; Morgan & Hunt, 1994) and seemingly help either party attain joint relational outcomes. Although psychological contracts assist in developing positive bonds within a relationship (Anderson & Schalk, 1998) and this constitutes strong beliefs about what both parties are obliged to for being in the relationship (Rousseau, 1995; Rousseau & Tijoriwala, 1998) these are highly idiosyncratic and reside in the mind of the individual (Rousseau, 1995). From this point of view, it would seem likely that as norms develop through socialization the parallel development of the psychological contract will result and thus the interactive effects of theses two constructs upon one another, as well as their conjoint impact upon governance will need to be examined.
Even the interaction between employees within the same firm will result in the formation of the psychological contract (Llewellyn, 2001) and this could moderate the effectiveness of managing these relationships.

The literature related to employee bonds shows these to form through interaction with their employers through its agents, supervisors, peers, and, management (Anderson & Schalk, 1998), suggesting the avenue that is designed to investigate these multiple interactions is likely to be most fruitful.

Evidence concerning the Worker-Organization Relationship has shown a positive relationship between psychological contract fulfilment and objective measures of performance (Conway & Coyle-Shapiro, 2012), a negative relationship between PC breach and objective performance (salary) (Chen, Tsui, & Zhong, 2008), a negative relationship between PC breach and supervisory rated in-role performance (Restubog, Bordia, Tang, & Krebs, 2010), a positive relationship between PC breach and organizational deviance mediated by contract violation (Kiazad, Seibert, & Krainer, 2014), a positive relationship between contract violation and organizational deviance mediated by revenge cognitions (Bordia, Restubor, & Tang, 2008).

Thus, psychological contracts’ literature (e.g., Rousseau, 1995) proposes that employees will most likely want to reciprocate the companies’ interest in their well being and development, with higher levels of job satisfaction, organizational commitment, job involvement, organizational citizenship behavior, when they have positive perceptions regarding HRM policies and practices.

Contracts (including psychological contracts), like all social exchange are based on trust (Doney & Cannon, 1997) and the norm of reciprocity (Gouldner, 1960; Homans, 1958; Levi-Strauss, 1957; Malinowski, 1922; Simmel, 1950). However, these constructs cannot simply materialize, as they evolve as a result of some form of socialization process (Doney & Cannon, 1997; Williams, 2001).

As a social exchange relationship involves unspecified obligations, exchange partners are required to trust the other to discharge their obligations and also to accept the norm of reciprocity that obligates an individual to return favourable treatment. Exchange partners can demonstrate their trustworthiness by reciprocating benefits received. As such, social exchange relationships take time to develop as exchange partners begin to
demonstrate their trustworthiness and show that they accept the norm of reciprocity governing the relationship.

Homans (as cited in Coyle-Shapiro & Conway, 2005) views social behavior as “an exchange of goods, material goods but also non-material ones such as the symbols of approval or prestige” (p. 606). Blau (1964) distinguishes social and economic exchange, where the nature of the economic exchange is usually an explicit and formal one, where each party fulfills specific obligations; social exchange, in contrast, involves unspecified obligations: “favours that create and diffuse future obligations, not precisely specified ones, and the nature of the return cannot be bargained about, but must be left to the discretion of the one who makes it” (Blau, 1964, p. 93). Thus, one party needs to trust the other to discharge future obligations (i.e., reciprocate) in the initial stages of the exchange and it is the regular discharge of obligations that promote trust in the relationship.

Gouldner (1960) made this process more explicit through his seminal work on the “norm of reciprocity”, stating that this norm implies two demands “(1) people should help those who have helped them and (2) people should not injure those who have helped them”.

According to the same author, the norm of reciprocity can be understood by examining different elements or components of this process, including equivalency (how much of what is returned is equivalent/proportional to what was attained), immediacy (how long has passed between a benefit and its return, where a feeling of unfulfilled duty remains) and interest (the reason why the other element of the dyad is in the exchange relationship). The combination of these elements is arguably the base of the mechanisms through which the stability of social systems is maintained, (Homans, 1958; Liden, Sparrowe, & Wayne, 1997; Simmel, 1950; Thurnwald, 1932), or even, as Thurnwald (1932) puts it “the vital principle of society”. (p.106).

The norm of reciprocity plays an important role in the development of social exchange relationships by perpetuating the ongoing fulfilment of obligations and strengthening

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5 Gouldner (1960) argues that the strength of an obligation to repay is contingent upon the value of the benefit received. Benefits are more valued when (a) the recipient is in greater need; (b) the donor cannot afford to (but does) give the benefit; (c) the donor provides the benefit in the absence of a motive of self-interest; and (d) the donor was not required to give the benefit. Therefore, highly valued benefits create a stronger obligation to reciprocate.
indebtedness and there is some empirical evidence that a high social capital is associ-
ated with improvements in the social and economic well-being (Pretty, 2003).

Some authors go so far as to believe that this need to reciprocate and the social ex-
change practices have their fundaments in the selective evolutionary process
(Wischniewski et al., 2009). Recent research in the evolutionary neurosciences has be-
gun to unveil the factors involved in complex decision-making in situations of social
exchange. According to different authors, it seems to become increasingly clear that
humans have evolved cognitive and emotional motives that guide their behaviour to-
wards cooperation, defection, and even sanctioning of unfair behaviour (Axelrod &
Hamilton, 1981; Fehr & Fischbacher, 2004; Nowak, 2006; Trivers, 1971; Wilson,
2006). Empirical evidence deriving both from behavioural observation and brain imag-
ing studies (e.g., Quervain et al., 2004; Sanfey, Rilling, Aronson, Nystrom, & Cohen,
2003) propose that this way of dealing with reciprocity seems to be quite universal as
humans, across cultures, seem to deal with communal sharing, social ranking, imbal-
ances of equality and market pricing in very similar ways (Fiske, 1992).

Still, there is a paucity of research into individual differences in behaviour, although it
is implicitly clear that character and temperament as well as situational contingencies
influence an individual’s attitude towards cooperation or noncooperative alternatives.
Contextual information also seems to be vital for an individual’s benefit-cost evaluation
in a given situation (Wischniewski et al., 2009). For example, people who themselves
have abundant resources at hand are arguably more likely to share with others in need;
in situations in which an individual feels threatened, the likelihood of cooperating with
a stranger is probably weakened⁶. Like individual differences, such contextual factors
influencing decision-making during social exchange have largely been disregarded in
experimental research (Wischniewski et al., 2009). In the workplace, Coyle-Shapiro and
Kessler (2002) demonstrated that the norm of reciprocity in which the conferring of
benefits (i.e., fulfilling obligations) creates a perceived obligation on the part of the re-

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⁶ Classic social psychological theories of intergroup relations emphasize the role of threat and competi-
tion in predicting intergroup attitudes (LeVine & Campbell, 1972; Sears, 1988), and empirical research
has consistently borne out their negative consequences in international and multicultural research (Jack-
son, Brown, Brown, & Marks, 2001; Quillian, 1995). Threat may be perceived and interpreted in a num-
ber of ways. Integrated threat theory posits that there are four fundamental threats: realistic threat, sym-
bolic threat, negative stereotypes and intergroup anxiety (Stephan & Stephan, 1996, 2000), and each of
these has been shown to be significant predictors of attitudes toward outgroups, including responses to
immigrants, ethnic minorities and national groups (Stephan, Ybarra, & Bachman, 1999; Stephan, Ybarra,
Martinez, Schwarzwald, & Tur-Kaspa, 1998).
recipient to reciprocate: reciprocity comes from both parties to the worker-organization relationship. These authors propose that in reciprocating future benefits from the employer, employees seem to place trust in the employer that these benefits will be forthcoming, confirming Rousseau’s (1989) argument on the centrality of reciprocity to our understanding of how exchange relationships are governed.

Several other authors confirm the need to investigate individual variables, stressing that the range of fits analysed in HRM-research needs to be supplemented by the person-organization fit in order to include perceptions of workers and to be able to differentiate between employee groups; this is supplemented by the notion that the assessment and measurement of performance should focus on more proximal outcomes (Paauwe, 2009; Paauwe & Boselie, 2005; Wall & Wood, 2005).

Trivers (1971) argued that it can be predicted that different forms of cooperation between non-kin individuals can be distinguished according to the directness of reciprocity. Direct reciprocity implies that there are repeated interactions between the same two individuals (or groups of individuals), and that both have resources that are attractive to one another (Trivers, 1971) such that both parties receive direct benefit from the exchange (Hammerstein & Leimar, 2006), referred to as “conditional cooperation” (or direct reciprocity), where the employment relationship and the worker-organization relationship can be classified.

Accordingly, people tend to cooperate if their counterpart behaves in the same way and defection by one party is seen as a legitimate reason for the other party to retaliate (Fehr & Fischbacher, 2004). The efficacy of such reciprocity can be experienced by both parties within relatively short periods of time.

In everyday life, however, indirect reciprocity (also referred to as altruism) is also prevalent, where the benefit may lie in improved reputation or gain in social status (Nowak, 2006) - a potential pay-off that may lie in the more distant future. Nevertheless, such behaviour can be frequently observed, because humans are concerned about the impressions other people get of them; usually, helpful deeds are approved by significant others or the community, and hence may be suitable to help raise one’s social status (Nowak &

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7 Trivers (1971) was the first to lay the theoretical groundwork for the understanding of altruistic behavior between genetically unrelated individuals within the modern evolutionary synthesis of “inclusive fitness theory”.

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Sigmund, 1998). In evolutionary terms indirect reciprocity may also serve as an “honest signal”: individuals/parties in the social exchange context who are willing to take costs without the (direct) prospect of getting anything in return may in fact be showing that they can afford giving away “surplus” resources.

Above and beyond direct and indirect reciprocity, however, cooperative behaviour can sometimes appear to be entirely altruistic, without the prospects of ever getting anything in return. This form of “strong” altruism may be less prevalent than reciprocal forms of cooperation, since subjects are wired for giving and perceiving reciprocity (even if indirect and distal) (Wischniewski et al, 2009).

In the specific context of organizations and according to Social Exchange Theory (SET) (e.g., Blau, 1964), workers will experience a higher will to reciprocate the trust and care that leaders may express in a relationship (Cardona & Eola, 2003; Dirks & Ferrin, 2002; Konovsky & Pugh, 1994; Organ, 1990).

This means that although traditionally we refer to reciprocity in the context of mutual reciprocity or restricted (direct) exchange (Ekeh, 1974), this construct includes a certain mental “quid pro quo”, and subjects may feel obliged to reciprocate their benefactors in different levels and this need to reciprocate may be expressed even if they cannot do it directly, by helping others that indirectly may affect them (e.g., the children of the “benefactors”) (Levi-Strauss, 1949).

Thus reciprocity seems to contribute to the development of mutual obligations between people in the long term, which helps attaining positive environmental results and ultimately contributes towards organizational performance (Pretty, 2003).

Common rules, norms and sanctions operate as behaviour moderators through a system of reinforcements and punishments that can be more or less conscientious. These ensure the group’s interests and are complementary to the individuals’ own interests (Pretty, 2003). This is often referred to as “the rules of the game” and provides individuals with the confidence to invest in “common good” (Pretty, 2003). Staff attitudes towards col-

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8 This type of reciprocity, also referred to as “univocal reciprocity” and “generalized exchange” (Ekeh, 1974; Levi-Strauss, 1949), or even “circular exchange” (Malinowski, 1939), involves 3 or more actors that are connected in an integrated transaction, where reciprocations are indirect and non mutual (Ekeh, 1974). Generalized trade is characterized by the lack of 1 to 1 correspondence between what 2 parties give and receive directly from each other; this is the main difference between generalized and restricted exchange (Wade-Benzoni, 2002).
Laboration at work will always remain conditional on arrangements being consistent treatment that is perceived as “fair” (Grimshaw et al., 2010).

These management decisions that define the rules of the game (or that break them, with obvious consequences for the organization), can last for several generations in society, as well as the organization itself. In the organizational context a “generation” can be cohort-based, or event-based: it is the socialization process and/or the psychological contract with the organization that can make it so that a group is considered a generation in the organization (Wade-Benzoni, 2002). This concept of intergenerational behaviour is important for organizations in a long term perspective, especially when long-term organizational interests conflict with the immediate interest of the current generation, that is to say, when individuals are faced with the choice of serving their own interests or the organization’s, in cases they do not overlap (Wade-Benzoni, 2002).

Reciprocity can also reach a continuum from negative to balanced positive to generalized positive reciprocity (Liden et al., 1997).

Negative reciprocity can be defined as bellicose relationships that are defined for personal interests, sabotage and hatred, where each part extracts the minimum from each other and acts in order to contradict the counterpart’s objectives. This is highly dysfunctional (Liden et al., 1997).

However pertinent, it would not seem that an exclusive reliance on exchange based frameworks would do justice to the range of norms that govern how individuals act in their relationship with their employer and would require expanding the basis of behaviour beyond straightforward reciprocity; this relationship should consider the possibility of other mediator constructs, like personality traits and attitudes (Coyle-Shapiro & Conway, 2005).

Standard models of homo economicus suggest that human behaviour is universally based on deliberate and controlled thinking that is free from biases, and strives to maximize personal benefit (i.e., subjective utility), regardless of social and emotional context. This view has been challenged, following observations that human behaviour is all

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9 In cohort-based generations, a group of individuals considered a generation has an initial temporal beginning, giving them a certain contemporaneity status – for example, student groups are cohort-based.

10 Event-based generations are created when the occurrence of a significative event leads to the differentiation of generations in different organizations (e.g., change of management, buildings, etc.)
but logical when it comes to the distribution of resources between individuals, groups or nations, while our introspective access to these processes is limited (Fehr & Fischbacher, 2004). In reality, our behaviour in situations involving give or take is widely guided by momentary states such as affection, empathy, or anger, as well as by general environment interactions influencing personality traits, and gender.

Furthermore, organizations are complex exchange systems and, as such, a number of exchanges may be occurring simultaneously, which may have consequences for other exchanges. An exchange does not occur in isolation nor can it be conceptualized as an isolated event (Coyle-Shapiro & Conway, 2005), for example, if the employee-employee exchange was observed by a supervisor or commented/noticed by others.

Feeling an obligation at work is important because it compels employees to repay advantageous treatment received from their employers (Eisenberger, Armeli, Rexwinkel, Lynch, & Rhoades, 2001), provides guidance in self-management (Dose & Klimoski, 1995) and often precedes taking charge at work (Morrison & Phelps, 1999). Cropanzano and Mitchell (2005) argued that “further investigations of how exchange orientation influences organizational relationships is of great importance.” (p. 878).

Cropanzano and Mitchell (2005) suggested that, although the norm of reciprocity is a universally accepted principle (as posited by Gouldner, 1960), how people and cultures apply reciprocity principles may vary. The notion of context is becoming of increasing importance to organizational researchers (Johns, 2006; Wikhamn & Hall, 2012). Coyle-Shapiro and Conway (2005) suggest one should see social exchange as an on going process and not one separate moment in time and Paauwe (2009) refers that in order to figure out the nature of the relationship between HRM and OP, the employment relationship must assume a more central position.

The Employee-Organization Relationship or Worker-Organization Relationship is “an overarching term to describe the relationship between the employee and the organization” (Shore et al., 2004, p. 292). In the worker-organization relationship literature three constructs paramount and are often presented together in different studies, as representing desired employee responses to HR practices (Nishii et al., 2008): job satisfaction (the relationship individuals have with the work itself and the job conditions), organiza-
tional commitment\textsuperscript{11} (how attached individuals are to their organization) and organizational citizenship behaviour (how individuals relate to other colleagues to profit the organization when behaviour is discretionary). We will further explore these three constructs in this chapter.

3.1.1. Job Satisfaction

Job satisfaction (JS) is the overall summary evaluation a person makes regarding his or her work environment (Weiss, Dawis, England, & Lofquist, 1967); it can be defined as positive affect towards employment (Mueller & McCloskey, 1990) and it is arguably a fairly stable, multidimensional evaluation of how the job meets the employee’s needs, wants, or expectations (Fisher, 2003). Locke (1976) in his well-cited definition considers job satisfaction to be “a pleasurable or positive emotional state resulting from the appraisal of one’s job or job experiences and as a function of the perceived relationship between what one wants from one’s job and what one perceives it as offering” (p. 1300). JS is an attitude that relates to overall attitudes towards life at work, or life satisfaction (Ilies, Wilson, & Wagner, 2009) as well as to service quality (Schneider & Bowen, 1985).

JS has had a key role in management research, especially because of the “happy-productive worker hypotheses” (Fisher, 2003; Petty, McGee, & Cavender, 1984). The search for a relationship between job satisfaction and job performance has been referred to as the ‘Holy Grail’ of organizational behaviour research (Weiss & Cropranzano, 1996). The idea that satisfied employees will perform their work more effectively underpins many theories of performance, leadership, reward, and job design (e.g., Batt, 2002; Hackman & Oldham, 1976; Morrisey, Cordery, Girardi, & Payne, 2005; Patterson, Warr, & West as cited in Shipton, West, Dawson, Birdi, & Patterson, 2006). Managers and lay people are thought to believe in what has been called the ‘happy–productive worker hypothesis’ (Kluger & Tikochinsky, 2001; Ledford, 1999; Staw & Barsade as cited in Fisher, 2003). Implicit in these expectations is the basic idea that employees who are satisfied with their jobs are likely to be more committed to their team and their organization, as well as more productive (Hsu & Wang, 2008; Menezes, 2012).

\textsuperscript{11} Social exchange theory has been considered a cornerstone for research on support and commitment (Bishop et al., 2005).
Regardless of the success (or lack there of) of scholars in proving the connection between JS and Performance, the latter remains one of the most prominent variables in study in business science and organizational behaviour (Spagnoli, Caetano, & Santos, 2012). JS is relevant for scholars interested in the subjective evaluation of work conditions, but also for managers and researchers regarding organizational outcomes (e.g., organizational commitment, extra-role behaviour) and for employees, job satisfaction has implications for subjective well being (Judge & Hulin, 1993) and life satisfaction (Judge & Watanabe, 1993). It is assumed that Job Satisfaction has major implications as it is a prevailing construct covering all professions, work, jobs and contexts (Spagnoli et al., 2012).

Job satisfaction is an important dimension of employee well being in its own right but is also a desired indicator of various dimensions of organizational success (e.g., Akdere, 2009; Brown & Lam, 2008; Culbertson, 2009; Hsu & Wang, 2008; Korunka, Scharitzer, Carayon, & Sainfor, 2003) It is seen as a potential route to high performance (Boxall & Purcell, 2003; Wright, Gardner, & Moynihan, 2003). Other studies found correlations between job satisfaction and friendships among staff members (Adams & Bond 2000, Kovner, Brewer, Wu, Cheng, & Suzuki, 2006).

In the healthcare context, studies have emerged demonstrating the relationship between JS and quality of care. Evidence suggests that nurses’ JS affects patient satisfaction and the quality of patient care (Aiken, Smith, & Lake, 1994; Aiken, Lake, Sochalski, & Sloane, 1997) as well as nurses’ physical and psychological stress (Carvalho & Lopes, 2006). Regarding job satisfaction, it has been found that the more nurses are satisfied with their job, the less likely they will leave it (Boyle, Bott, Hansen, Woods, & Taunton, 1999; Chen et al., 2008; Hayes et al., 2006). Hayes et al. (2006) show that job dissatisfaction is reported to be strongly associated with nurse turnover and several authors (e.g., Huang et al., 2012; Shields & Ward, 2001; Tsai & Wu, 2010) point out that it is also strongly associated with intent to leave: positive correlation between nurses’ JS and retention is well established (Leveck & Jones, 1996; Molassiotis & Haberman, 1996). Among physicians, non-monetary factors seem to be perhaps more important contributes to job satisfaction than monetary incentives (Janus, Amelungh, Gaitanidesc, & Schwartz, 2007). Research focusing on factors related to nurse job satisfaction have identified correlations between satisfaction and improved nurse–physician collaboration (Rosenstein, 2002), and collaboration with medical staff (Adams & Bond, 2000; Chang,
Ma, Chiu, Lin, & Lee, 2009). Rafferty, Ball, and Aiken (2001) surveyed over ten thousand nurses in England and found that nurses with higher interdisciplinary teamwork scores were more likely to be satisfied with their jobs, planned to stay in them and had lower burnout scores. Chang et al. (2009) found that collaborative interdisciplinary relationships were one of the most important predictors of job satisfaction for all healthcare providers. Most nurse turnover models assign an important role to job satisfaction and organizational commitment (Hayes et al., 2006) and this finding generalizes to other employees as well (Griffeth, Hom, & Gaetner, 2000; Tett & Meyer, 1993).

A variety of correlates of job satisfaction has been investigated over the years, including citizenship-behavior, communication and other associates of cooperative relationships. (Shetach & Marcus, 2015).

3.1.2. Organizational Commitment
Organizational Commitment has been the target of growing attention and popularity in the area of Organizational Psychology in the past decades (Bergman, 2006; Mathieu & Zajac, 1990; Meyer & Allen 1997); investigation has been extensive although relatively unsystematic (Meyer, Becker, & Vanderberghe, 2004)

Meyer et al. (2004) identify two major moments in the development of the theory relative to Organizational Commitment in the last decades: the acknowledgement that it can assume several shapes (e.g., Meyer & Allen, 1991; Mowday, Steers, & Porter, 1979; O’Reily & Chatman, 1985) and the consensus around the existence of several foci (such as the organization, the job, the career, the union, etc.).

Although there is some redundancy among the several models, there are also important differences among them (cf. Meyer & Herscovitch, 2001 for a review). The several definitions reflect essentially three main ideas: commitment reflecting an affective orientation (e.g., Mowday et al., 1979), the recognition of the costs of leaving the organization (e.g., Becker, 1960) and the obligation to remain with the organization (e.g., Wiener, 1982).

Despite the fact that is was originally conceived as an one-dimensional construct (Becker, 1960; Mowday et al., 1979), nowadays it is rather consensual that Organizational Commitment is multidimensional (Bergman, 2006; Fields, 2002; Meyer & Allen, 1997); this has important repercussions in the comprehension of the consequences and interac-
tions of this construct with other job attitudes (Gelatly, Meyer, & Lutchack, 2006).

It is defensible that Meyer and Allen’s (1997; Allen & Meyer, 1990) affective, normative and continuance commitment approach is the most studied and empirically supported model, prevailing in the literature (Bergman, 2006; Meyer, Stanley, Herschovitch, & Topolnytsky, 2002) and being already explored in diverse contexts and cultures, although most studies are based in the North American reality (cf. Allen & Meyer, 1996).

About the different focus that commitment can assume in the work context, organizational commitment is the most developed construct of this nomological net (Morrow & McElroy, 1993).

Organizational commitment is often related to but different from work engagement. Work engagement is an affective-motivational, work-related state of fulfilment in employees that is characterized by vigour, dedication and absorption (Schaufeli & Bakker, 2004). Engaged employees have high levels of energy, are enthusiastic about their work, and they are often fully immersed in their job so that “time flies” (Macey & Schneider, 2008).

Some authors refer organisational characteristics as the most influential factor in developing commitment and highlight the weight of decentralisation and participation in decision-making (Nijhof, Jong, & Beukhof, 1998). Iverson (1996) studies employee acceptance of organisational change and suggests that commitment should be considered as a main determinant, and a mediator of factors in the process. Shadur, Rodwell, and Bamber (1995) study predictors of an employee approval of lean production and find that commitment to the company is one important element.

Despite the multiplicity of definitions and models there is a common point in the sense that organizational commitment reflects a psychological bond with the organization inversely related to turnover and withdrawal intentions (Allen & Meyer, 1990; Fields, 2002), although it is obviously very reductive to consider that Organizational Commitment is only related to focal intentions to remain with the organization (cf. Meyer & Allen, 1997, for a more detailed view).

There has been a growing degree of consensus among researchers that employees’ commitment to both organization and job constitutes a key factor that links between an
organization’s HRM practices and employees’ work behaviours and outcomes including enhanced job performance, reduced turnover and absenteeism (e.g., Guest 1997; Meyer & Allen, 1997; Whitener, 2001). For example, Guest (1997) lays out the clear causal path that many other researchers in this field assume.

In the healthcare context, Chang (2005) refers that the nursing work context requires committed workers. Concerning organizational commitment, research indicates that the stronger nurses’ commitment to their hospital, the smaller their turnover intention (Beecroft, Dorey, & Wenten, 2008; Tourangeau & Cranley, 2006) and commitment is known to influence innovative behaviour (Jafri 2010). Qualitative study by O’Donohue and Nelson (2007) of Australian nurses found that nurses redirected their focus away from the hospital to their profession allowing them to tolerate some level of non delivery of ideological commitments by the hospital and at the same time continue to do their best for patients. Finally, it appears that job satisfaction and organizational commitment are crucial antecedents of nurse turnover (e.g., Hayes et al., 2006).

3.1.3. Organizational Citizenship Behaviour
Organizational Citizenship Behaviour (OCB) can be defined as an individual behaviour that is discretionary, not contractually guaranteed and that in the aggregate promotes the effective functioning of the organization (Organ, 1997; Smith, Organ, & Near, 1983).

Organizational Citizenship Behaviour (OCB) is discretionary in the sense that it is not an enforceable requirement of the role or the job description, but a matter of personal choice (such that its omission is generally not understood as punishable) and by “not contractually guaranteed” we mean that an OCB is not directly or explicitly recognized by the formal reward system (Organ, 1997).

For example, spontaneously helping a co-worker when he or she is in an occasional overload of work can be considered an OCB in the sense that it is discretionary (spontaneous, even, in this case), it is not contractually guaranteed, as it is a punctual extra-role activity and promotes the effective functioning of the organization, since it helps maintain productivity in a time of need. This behaviour would stop being considered an OCB if (a) the person was requested by a supervisor to help the colleague or in some way the lack of that behaviour would be punishable (e.g., being a doctor and not helping a person who is having a heart attack in a social event) (b) that collaboration with the co-
worker was held in account for Performance Appraisal or explicitly rewarded by the formal reward system (e.g., pay, promotions, etc.) or (c) that behaviour would be counterproductive to the aggregate functioning of the company (e.g., the person’s task is more complicated/urgent/important that his or her co-worker’s, the other co-worker is constantly needing help and the person’s intervention masks the need for another worker in that job or even the co-workers ineffectiveness, etc.).

This construct, however fashionable at the moment, has been much debated over time due to the concepts of in-role and extra-role behaviour. Although some of the original articles referred to OCB as extra-role behaviours, further research verified that much of the OCB’s were perceived by the workers as in-role, rather than extra-role (cf. Morrison, 1994) a question that inheres the very fuzziness of the concepts “role” and “job” themselves (Organ, 1997).

In order to avoid the discussion between what employees could consider in-role or extra-role and to distance ourselves from a discussion that is not the focus of this study, we chose to approach this subject by restricting our research to specific Extra-role Behaviours such as Van Dyne and LePine’s (1998) model “Helping and Voice Behaviours”.

According to this model, helping behaviour is defined as the proactive behaviour that emphasizes small acts of consideration towards other co-workers, and Voice Behaviours are the proactive behaviours that challenge the status quo in order to improve Organizational Performance. Both are seen as extra role behaviours that the employees may undertake at their own time (Fields, 2002).

Extra-role behaviours include actions that protect the organisation and its property, constructive suggestions for improving the organisation, self-training for additional responsibility, creating a favourable climate for the organisation and its surrounding environments, and cooperative activities (Katz, 1964). The definition of OCB stipulates that these extra-role behaviours are not linked to any formal reward system, but the continual demonstration of OCB over a period of time is said to positively influence the perception that colleagues and supervisors have about the employees who are exhibiting OCB (Podsakoff, Whiting, Podsakoff, & Blume, 2009). Markoczy, Vora, and Xin (2009) propose that it is the organisational environment that influences what types of behaviour
will be thought of as discretionary within the organisation. In general, extra-role behaviours associated with OCB ensure more efficient use of resources, liberate some of management’s time, and support and enhance the ability of colleagues to perform their daily tasks (Xerri & Brunetto, 2013). The consequences of organizational citizenship behaviour can result in feelings of higher job social support from supervisors and coworkers, that can reduce turnover intention (Chiu et al., 2009; Shader et al., 2001).

Since OCB’s have been associated with a variety of positive outcomes, many researchers have attempted to identify its antecedents, which include among others, job satisfaction (Barnes, Ghumman, & Scott, 2013), organizational commitment (Ng & Feldman, 2011; Podsakoff, MacKenzie, & Bommer, 1996; Zhu, Newman, Miao, & Hooke, 2013), emotional intelligence (Ramachandran, Jordan, Troth, & Lawrence, 2011), personality (Moon, Kamdar, Mayer, & Takeuchi, 2008), perceived fairness (Deng, 2012), perceived organizational support (Chiang & Hsieh, 2012; Duffy & Juliana, 2013), transformational leadership (Podsakoff et al., 1996; Podsakoff, MacKenzie, Moorman, & Fetter, 1990; Zhu et al., 2013), role stressors (Eatough, Chang, Miloslavic, & Johnson, 2011), empowerment (Jiang, Sun, & Law, 2011), leader-member exchange (Ilies, Nahrgang, & Morgeson, 2007) and human resource practices (Nasurdin et al, 2015).

Given the unique characteristics of service organizations as opposed to manufacturing organizations, Wang (2009) is of the opinion that the performance of OCBs is more imperative for service organizations. Specifically, service organizations offer intangible product to its customer, often involves interactions between service employees and customers during service delivery, and finally, service products are often produced and consumed simultaneously by customers (Bowen & Ford, 2002; Sun et al., 2007). In addition to the service features, service organizations are often challenged with unique and impulsive customers’ demands, as well as having to deal with customers from various backgrounds and cultures (Nasurdin et al., 2015; Prentice & King, 2011).

In the healthcare context, Xerri and Brunetto (2013) applying social exchange theory as a lens for examining the key argument that nursing employees, who are committed to the organisation and who exhibit OCB, will be more likely to be innovative in the workplace; these authors report that OCB is recognised as an individual-level factor that may have a positive relationship with an organisation’s ability to successfully implement organisational strategy, as well as gain a competitive advantage. Specifically, as
relationships are formed within the workplace, reciprocity is developed, which provides an environment that facilitates employees helping one another and the organisation beyond their expected work duties (Xerri & Brunetto, 2013).
Chapter 4 – Performance-Related Worker Self-Efficacy

“The one thing that doesn't abide by majority rule is a person's conscience.”
— Harper Lee, *To Kill a Mockingbird*
Chapter 4 – Performance-Related Worker Self-Efficacy

4.1. Organizational Performance in Healthcare

“In the health sector, the outputs (products) are difficult to define, since health is a complex concept, there is no traditional health market, and there is lack of homogeneity between the output measurements, as in case of inpatients.” (Ferreira & Marques, 2014)

The most crucial part in relating HRM and Organizational Performance (OP) is of course the linkage between the two (Combs et al., 2006; Paauwe, 2009; Paauwe et al., 2013; Vermeeren et al., 2014). Regardless, the task of relating HRM with OP has met obstacles that are both methodological and conceptual in nature.

Although the linkage between HRM and OP seems intuitive and clear to most researchers, some critics have stated that the evidence for an effect of HRM on performance is promising but only circumstantial due, for the most part, to inadequate research design (Wall & Wood, 2005). Wall and Wood (2005) point to the fact that most research in this area is cross-sectional, which is adequate for exploratory studies and providing clues for future research (as well as providing evidence-based arguments for investing in costly longitudinal designs), but not for inferring causal relationships. The authors mention that even when the design is longitudinal seldom do studies consider the timing with the organization’s implementation (or substantial enhancement) of HRM between the performance measurement occasions, which is often translated in data collection moments that have little to do with the kind of conclusions researchers mean to draw; finally, these authors point to the scarcity of experimental studies (with controls).

Adding to issues with research design, conceptual issues with defining and measuring performance arise, since performance outcomes can be captured in a variety of ways. Dyer and Reeves (1995) famously mention:

- Financial outcomes (e.g., profits, sales, market share);
- Organizational outcomes (e.g., output measures such as productivity, quality, efficiency);
- HR-related outcomes (e.g., attitudinal and behavioral impacts among employees, such as satisfaction, commitment, intention to quit).

Hospitals and healthcare institutions in general, not unlike most organizations, are con-
cerned with maximizing effectiveness through the adoption of appropriate management policies and practices. OP issues are therefore not alien to this type of institutions; unlike most other organizations however, ‘effectiveness’ in hospitals cannot consider only financial aspects, it is measured partly by their success in treating illness and avoiding deaths (West et al., 2006), which makes OP in healthcare a rather controversial subject.

Crêteur, Pochet, Pouplier, and Closon (2000) have synthesized major performance criteria in a Hospital retaining five rational dimensions: 1) quality of care; 2) satisfaction of patients; 3) satisfaction of human resources; 4) efficiency; 5) financial results.

Equating two dimensions as critical and differentiated as financial results and quality of care (especially) has been stemming a great deal of discussion in this area where ethical questions can be raised with management issues: when healthcare decisions need to be equated with financial issues, the question may arise that a financial value is being put on a human life. These issues have led some authors like West et al. (2006) to prefer using only the standardized mortality rate (ratio between the observed number of deaths in an study population and the number of deaths would be expected, based on the case mix of a hospital), but authors from the area of the economic evaluation of health technologies (e.g., Drummond, O’Brien, Stoddart, & Torrance, 1997) contemplate other indexes such as the QALY (Quality Adjusted Life Years, a generic measure of disease burden, including both the quality and the quantity of life lived; it is used in assessing the value for money of a medical intervention) or the money saved from certain procedures, depending on different approaches.

Buchan (as cited in Buchan, 2004) structured a series of other indicators that Hospitals use in order to measure effectiveness/performance, dividing them in 3 groups: 1) "activity"/process-related (number of beds, occupied beds, outpatient visits, client contacts), 2) staffing-related (job satisfaction - measured by attitudinal survey, accidents/injuries, absence, assaults on staff, vacancy rates, overtime, turnover/stability/retention, use of temporary staff) and 3) care-related (output/outcome) (patient length of stay, readmission rates, live births, mortality rates, urinary tract infections, pneumonia, shock, upper gastrointestinal bleeding, deep vein thrombosis, pressure sores/ulcers, cross-infections, patient satisfaction survey).

The majority of the authors agree that using the same measures in different hospitals
may not be the most adequate criteria since the case mix (the type or mix of patients/diagnostics treated by a hospital or unit) might be different and hospital policies that involve the indicators might compromise the conclusions one can draw (e.g., if you measure mortality rates in different hospitals you might not only be measuring medical inefficiency but also the policy to keep terminal patients in the hospital or to send them home in their final moments) (Buchan, 2004).

Finally Porter (2010) in a paper for the New England Journal of Medicine proposed “Value should be the preeminent goal in the health care system, because it is what ultimately matters for customers (patients) and unites the interests of all system actors.” (p. 2477). The author discusses that value must be measured directly in health care because profitability, the proxy for value in most industries, is not a reliable indicator of value in health care because of flawed reimbursement and lack of competition based on actual results. For this author, value in health care depends on the actual patient health outcomes, not the volume of services delivered and is based on the results achieved relative to the inputs (or cost) required, and as such it encompasses efficiency. However interesting this point of view may be, even the author suggests the difficulties of measuring this construct in the current situation of affairs: most healthcare systems are organized around the steps of treatments and specialities, not the patient per se, and value measurement (including patient outcomes and an accurate balance of global costs and benefits of treatments) in health care today is limited and highly imperfect.

So, on the one hand researchers and practitioners are faced with more strategic aspects of performance and on the other hand more societal aspects of performance. Strategic aspects of performance (based on economic rationality), emphasize outcomes such as labour productivity, innovation, quality, efficiency gains and flexibility (Boselie et al., 2005), whereas the more societal aspect of performance (based on relational or normative rationality) emphasize legitimacy and fairness (Paauwe, 2004) that can be operationalized through indicators like organizational citizenship behaviour, commitment, trust, perceived security, and perceived fairness (Paauwe & Boselie, 2005). These issues that are more or less transversal to all contexts are enhanced in the healthcare context, where societal aspects of performance can have a potentiated effect in the way that HR addresses and cares for patients, which in it self then reflects not only in the HR-reflect outcomes, but also in the financial and organizational outcomes.
4.2. Organizational Performance and Human Resource

Central to the societal aspects of performance, arguably a more sophisticated way of thinking about the relationship between HRM and performance, is the idea that HR practices at the organizational level affect the attitudes and behaviour of employees at the individual level which, in turn, affect key aggregated level behavioural or HR outcomes such as labour productivity and turnover which, subsequently, might impact organizational or firm-level outcomes (Paauwe, 2009).

So we are in need of performance indicators that are far more proximal in terms of what HR practices can actually affect, such as changes, for example, in employee work-related attitudes (motivation, commitment, trust) and subsequent changes in outcomes at organizational level (e.g., productivity and quality of services and/or products) (Paauwe, 2009). This is especially relevant when one considers that organizational performance is a function of team performance and individual performance, which in turn is influenced through interaction between employee ability, voluntary or discretionary effort and opportunities (Boxall & Macky, 2009).

Managing the workforce by means of HRM can therefore be seen as an important key to success in hospitals. Although multiple meta-analysis seem to confirm a relationship between HRM and performance in the for profit sector (e.g., Combs et al., 2006; Zacharatos, Hershcovis, Turner, & Barling, 2007), research focusing on the added value of HRM in hospitals remains scarce, even if some research has been confirming the basic notion that HRM and performance within the health care sector are linked (Vermeeren et al., 2014)\textsuperscript{12}. Further analysing HRM in the health care sector has been appointed as a productive endeavour for both researchers and practitioners to take (Vermeeren et al., 2014).

Thus it seems better to use the concept of ‘outcomes’ instead of performance (Guest, 1997) seems especially relevant for health care organizations, as financial performance is certainly not the only - or even primary – objective.

\textsuperscript{12} Vermeeren and colleagues (2014) have successfully related the use of HR practices to improved financial outcomes (measure: net margin), organizational outcomes (measure: client satisfaction) and HR outcomes (measure: sickness absence) in the healthcare context; however, the impact of HR practices on HR outcomes and organizational outcomes proved substantially larger than their impact on financial outcomes.
Wright & Kehoe (2013) propose that because employees’ perceptions of HR practices necessarily follow managers’ HR practice implementation (Nishii & Wright, 2008), employees’ HR practice perceptions are temporally closer to, and consequently likely to be more predictive of their attitudinal and behavioural outcomes than are HR practice ratings as provided by managers. This idea that the workers’ performance self-assessment can be a more immediate result of HRM contributed to our consideration of performance related worker self-efficacy as a proximal for worker and organizational performance in this context.

4.3. Performance related worker self-efficacy
The perception of being in control of the situation is often referred to as self-efficacy (Bandura, 1997). Self-efficacy can be defined as a self-evaluation of one’s competence (Bandura, 1993; van Dijk, 2009).

A considerable body of research has explored the development of individual self-efficacy. For example, self-efficacy is dependent on performance attainments, knowledge and skills, and comparison to relevant others (Kaufman, 2003). Self-efficacy increase has been consistently established as a consequence of higher levels of performance, as well as the confidence about ones’ knowledge and skills and through comparison to others (van Dijk, 2009). Bandura (1997) argues that it is affected by past performance, by modelling (observing others take similar actions), by persuasion and by independent information processing of or in addition to the above. Bandura (1986) has found that self-efficacy is strongly related to task performance and research ever since has been confirming this finding (e.g., Bandura, 1997; Chen, Gully, & Eden, 2001; Gist & Mitchell, 1992; Stajkovic & Luthans, 1998).

Research has shown that self-efficacy is not only a consequence of past performance; it is a predictor of several important work-related outcomes, including job attitudes (Saks, 1995), training proficiency (Martocchio & Judge, 1997), and job performance (Stajkovic & Luthans, 1998).

People differ in the areas in which they develop their efficacy and the levels at which they develop it, even within their given pursuits. Thus, the efficacy beliefs system is not a global trait, but a highly contextualized construct: it is a differentiated set of self-beliefs linked to distinct realms of functioning (Pepe, Farnese, Avallone, & Vecchione, 2010) regardless of the existence of generalized self-efficacy (one’s belief in one’s
overall competence to effect requisite performances across a wide variety of achievement situations [Chen et al., 2001]). Various forms of task specific self-efficacy have been researched in organisational behaviour, including computer self-efficacy (Compeau & Higgins, 1995), knowledge sharing (Hsu, Ju, Yen, & Chang, 2007), employee remote work self-efficacy (Staples, Hulland, & Higgins, 1999), employee creative self-efficacy (Tierney & Farmer 2002), front-line staff’s self-efficacy in initiating sales (Pattni, Soutar, & Klobas 2007), entrepreneurial self-efficacy (Brazeal, Schenkel, & Azriel, 2008), presentation self-efficacy (Tucker & McCarthy, 2001), school counsellor self-efficacy (Sutton & Fall, 1995), student self-efficacy (Phillips & Gully, 1997) and academic self-efficacy (Bong & Skaalvik, 2003).

Specific self-efficacy is a proximal state that positively relates to individuals’ decisions to engage and persist in task-related behaviour (Chen et al., 2001) and has also been pointed out as a mediator of the relationships between learning and ethical behaviour from human resource development in corporate social responsibility activity (Sukserm & Takahashi, 2012).

Social–cognitive theory and its central variable, self-efficacy, have been the focus of a voluminous amount of research in psychology13 (Judge, Jackson, Shaw, Scott, & Rich, 2007). Its applicability has been described as “pervasive across contexts and domains of human functioning” (Zimmerman & Schunk, 2003, p. 448). A primary application of self-efficacy has been in the work domain (Bandura, 1997).

In industrial–organizational psychology, self-efficacy has been remarkably popular. In the past years, more than 800 articles on self-efficacy have been published in organizational journals (Judge et al., 2007). Virtually every area in organizational research has utilized self-efficacy, including training (Kozlowski et al., 2001), leadership (Chen & Bliese, 2002), newcomer socialization and adjustment (Saks, 1995), performance evaluation (Bartol, Durham, & Poon, 2001), stress (Jex, Bliese, Buzzell, & Primeau, 2001; Schaubroeck, Jones, & Xie, 2001), political influence behaviors (Bozeman, Hochwarter, Perrewe, & Brymer, 2001), creativity (Redmond, Mumford, & Teach, 1993), negotia-

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13 Self-efficacy is the central variable of the social-cognitive theory, described as “the theory heard ‘round the world’” (D. Smith, 2002, p. 30). Its creator, Albert Bandura, has been credited as the fourth most influential psychologist in the history of psychology (Haggbloom, Warnick, & Warnick, 2002) and ranks among the top five psychologists in the number of citations in psychology texts (Knapp, 1985). According to Judge et al. (2007), it is fair to say that self-efficacy has proven to be one of the most focal concepts in contemporary psychology research.
tion (Stevens & Gist, 1997), occupational stress\(^\text{14}\) (Salanova, Peiró, & Schaufeli, 2002), group–team processes (Feltz & Lirgg, 1998), and work-related psychological responses such as psychological contracts, occupational commitment and turnover intention (e.g., Franco, Bennett, & Kanfer, 2002; Klassen & Chiu, 2011; Mulki, Lassk, & Jaramillo, 2008; Panatik, O’Driscoll, & Anderson, 2011; Shore & Tetrick, 1994). When employees feel competent in their jobs, they are more likely to commit themselves to the firm by lending a helping hand overall to protect the benefits of the firm (Todd & Kent, 2006). A strong sense of job self-efficacy enables the employees to persevere to overcome obstacles and make personal efforts to reach the goals of their firm (i.e., high relational contracts) (Allen-Brown, 1998). Specifically, a high level of job self-efficacy enhances the employees’ confidence in their judgments to execute the necessary courses of action required for the success of the firm (Allen-Brown, 1998). On the contrary, employees with low job self-efficacy often reveal low perseverance and an absence of long-term commitment in their job performance attainments (i.e., high transactional contracts) (Allen-Brown, 1998; Bandura, 1986), suggesting a negative relationship between job self-efficacy and transactional contracts (Chen & Lin, 2012). Self-efficacy is an important topic in organisational behaviour and psychology because of its relationship with task performance, the difficulty of the goals that are set (often termed goal level), goal commitment, task learning, choice and persistence of effort (Bandura 1997; Gist & Mitchell, 1992, Locke et al., 1984; Stajkovic & Luthans, 1998).

In 1989, Landy called self-efficacy “the wave of the future” (p. 410) in work motivation research; from interest in the concept in the past 20 years, Landy’s prevision has been an accurate one (Judge et al., 2007).

In this area of research, perhaps the most focal variable to which self-efficacy has been related is work-related performance (i.e., job and task performance). Meta-analytic evidence suggests that self-efficacy is rather strongly related to performance (Stajkovic & Luthans, 1998) and it has been emphasized that self-efficacy beliefs play a major role in influencing psychological outcomes among adult workers (Lubbers, Loughlin, & Zweig, 2005). This connection seems to be stronger concerning state or task-specific

\(^{14}\) For instance, it has been found that self-efficacy may act as a buffer in the presence of work stressors so that their negative impact is reduced (Salanova, Peiró, & Schaufeli, 2002). Workers with higher levels of self-efficacy will not perceive demands as threats, but as opportunities to overcome and develop their skills; they will strive to obtain good results, and achievements will be interpreted as a result of their own effort (Bandura, 2002).

Self-efficacy beliefs contribute to motivation by influencing the challenges people pursue, the effort they spend, and their perseverance in the face of obstacles as well as task-related effort (Bandura, 1997). Self-efficacious employees have been found to experience higher levels of flow over time (Salanova, Bakker, & Llorens, 2006), while self-efficacious students reported higher levels of engagement (Llorens, Schaufeli, Bakker, & Salanova, 2007) and job self-efficacy seems to be a cognitive mediator between perceived work quality (e.g., legal and ethical works) and psychological health (Lubbers et al., 2005).

Further, Pierce and Gardner (2004) reviewed studies showing that organizational-based self-esteem, namely the degree to which organizational members believe that they can satisfy their needs by participating in roles within the organization, is strongly related to job satisfaction and commitment. Additionally, in a recent longitudinal study among Finnish healthcare personnel, organizational-based self-esteem turned out to be one of the most important predictors of work engagement measured two years later (Mauno, Kinnunen, & Rukolainen, 2007).

The concept of self-efficacy obviously bears a close resemblance to the motivational theory of expectancy, the belief that one can attain a certain level of performance is in itself motivational. It has been shown that intrinsically motivating work fosters enactive mastery experiences, which are an important source of job self-efficacy (Lubbers et al., 2005). Call and Mortimer (2001) suggest that intrinsic job quality (e.g., ethical work environments or ethical citizenship) is an important factor in the development of workers’ perceptions of job self-efficacy (Chen & Lin, 2012; Lubbers et al., 2005). Self-efficacy is developed through social learning processes and Bandura (1986, 1997) identified four broad sources of information that influence self-efficacy (i.e., personal mastery experiences (performance accomplishments), vicarious experience (modelling), verbal persuasion, and physiological states [e.g., stress and anxiety]) (Leng, 2013).

However, a puzzling aspect of the Locke et al.’s (1984) results is the considerable success of self-efficacy in predicting performance in contrast to the consistent failure of effort-performance expectancy to show a positive association with performance in pre-
vious goal-setting studies (Mento, Cartledge, & Locke, 1980).

Further, proficient performance is partly guided by higher-order self-regulatory skills. These include generic skills for diagnosing task demands, constructing and evaluating alternative courses of action, setting proximal goals to guide one’s efforts, and creating self-incentives to sustain engagement in taxing activities and to manage stress and debilitating intrusive thoughts (Bandura, 2006).

In sum, perceived efficacy plays a key role in human functioning because it affects behaviour not only directly, but also via its impact on other determinants such as goals and aspirations, outcome expectations, affective proclivities, and perception of impediments and opportunities in the social environment (Bandura, 1997). Efficacy beliefs influence whether people think erratically or strategically, optimistically or pessimistically. As Ozer and Bandura (1990) noted, “people often fail to perform optimally even though they know what to do and possess the requisite skills. This is because self-referent thought mediates the translation of knowledge and abilities into proficient performance.” (p. 473). It has been suggested that this performance gap is largely associated with employees’ self-efficacy (Gist et al., 1991). Thus, perceptions of self-efficacy also influence the courses of action people choose to pursue, the challenges and goals they set for themselves and their commitment to them, how much effort they put forth in given endeavours, the outcomes they expect their efforts to produce, how long they persevere in the face of obstacles, their resilience to adversity, the quality of their emotional life and how much stress and depression they experience in coping with taxing environmental demands, and the life choices they make and the accomplishments they realize (Bandura, 2006). Also, empirical research has demonstrated that self-efficacy is related to a number of other work-performance measures such as adaptability to advanced technology (Hill, Smith, & Mann, 1987), coping with career related events (Stumpf, Brief, & Hartman, 1987), managerial idea generating (Gist, 1989), skill acquisition (Mitchell et al., 1994), and naval performance at sea (Eden & Zuk, 1995).

One of the properties of self-efficacy is that it is domain related, in the words of Bandura (2006) “One cannot be all things, which would require mastery of every realm of human life” (p. 307). A person can have high self-efficacy on one domain, and low self-efficacy on another (Bandura, 1986). For example, one can have high self-efficacy on carrying out academic tasks, but low self-efficacy of job skills (e.g., Jex &
Gudanowski, 1992; Zajacova, Lunch, & Espenshade, 2005). People differ in the areas in which they cultivate their efficacy and in the levels to which they develop it even within their given pursuits. For example, a business executive may have a high sense of organizational efficacy but low parenting efficacy. Thus, the efficacy belief system is highly contextualized, as opposed to being a global trait.

Theoretically, state or task self-efficacy is related to performance in diverse rationales. For example, theories of learned helplessness (Kuhl, 1984) support a link between positive self-evaluations and job performance. According to the model of learned helplessness, when faced with unfavourable circumstances, individuals with a positive, optimistic explanatory style will be less likely to display motivational deficits (i.e., lower their effort, withdraw from task-oriented behaviours), whereas those with a pessimistic explanatory style will display symptoms of helplessness (Peterson & Seligman, 1984). Another example is control theory (Lord & Manges, 1987) that predicts that when individuals perform below their expectations, they exert additional effort to obtain the performance goal, reduce their standard level (lower their aspirations), or withdraw from the task entirely (Judge & Bono, 2001).

The relationship between work or performance related self efficacy and worker performance has been proven to be indirect and moderated by individual factors (e.g., personality [Locke et al., 1984]), task complexity and locus of performance (Stajkovic & Luthans, 1998).

**Conclusion**

Considering that HRM refers to management practices that aim to enhance the performance of the organization, by improving the performance of the workforce (Boxall, Purcell, 2003; Michie & West, 2004), it is fair to say that employee performance is an important issue in organizations today.

Efficacy beliefs influence people’s thoughts and behaviors, and impact other determinants such as the goals and aspirations individuals choose to pursue, their resilience to adversity, commitment to goals, effort, outcomes and perseverance. This trend can be seen in organizational settings as well. People spend a lot of time in the workplace, expending much energy, emotions and hopes (Pepe et al., 2010).
Despite the growing attention paid to psychological processes by both researchers and practitioners, previous studies in the area of strategic human resource management tended to focus on examining the effectiveness of organizational-level human resource practices and their links with firm performance.

It is now increasingly recognized, however, that the true effectiveness of firms’ human resource policies and practices should be evaluated from employees’ behavioural and psychological outcomes (Lam, Chen, & Takeuchi, 2009; Park, Mitsuhashi, Fey, & Björkman, 2003). Clearly, greater effort needs to be made to explore the mechanisms by which the HRIM policies and practices of establishments influence employees’ behaviours and outcomes. Specifically, we need to shed more light on employees’ psychological processes by addressing the central part of hypothetical sequences, that is, the process by which work practices affect employee attitudes, which eventually influence employee work behaviour.

This study, therefore, looks at micro-level employees’ behaviour and attempts to examine how employees’ evaluations of organizational HRIM practices affect their performance related self-efficacy; in this study we propose that this relationship can also be mediated by the more complex construct of the Worker-Organization Relationship, which we will explore in the next chapter.
Chapter 5 – Research Questions, Models and Hypotheses

“Would it save you a lot of time if I just gave up and went mad now?”
- Douglas Adams, “The hitchhikers guide to the galaxy” (Vol. I)
Chapter 5 – Research Questions, Models and Hypotheses

In this chapter, research questions are presented and the research model is proposed; also we aim at explaining the research objectives and hypotheses.

5.1. Research Questions and Model

In this work we aim at testing a structure of the HRM-PROSE relationship at an individual level of analysis. Considering Performance Related Observations of Self-Efficacy (PROSE) as proxy for individual performance, which contributes to OP (especially in the health care sector [Boxall & Macky, 2009]), we want to know if SHRIM predicts PROSE, if SHRIM predicts WOR, and finally, if the relationship between SHRIM and PROSE is mediated by the overall Worker-Organization Relationship (WOR) as is proposed by our literature review (e.g., Boselie et al., 2005; Bowen & Ostroff, 2004; Kehoe & Wright, 2013: Nishii & Wright, 2008).

![Figure 5.0 – The proposed theoretical model for the research](image)

We propose different models in which these relationships may occur, using the constructs in figure 5.0 separately and together, which allows us to consider the influence of each construct as well as the interactions that may occur between variables. Namely, we want to know if the constructs in the model will act as predictors of the outcome
variables separately and then together in the model, as to test different facets of the underlying theory and make sure the model has no redundant variables. The different manners we propose these variables relate with each other are clarified in the hypotheses section of this work.
5.2. Research Hypotheses

Our research hypotheses are formulated as follows: direct relationship of SHRIM and PROSE, hypotheses concerning each of the components of the WOR and their individual relationship with SHRIM and WOR, and finally we hypothesize that the composite measure of the WOR mediates the relationship between SHRIM and PROSE.

5.2.1. Direct relationship between SHRIM – PROSE

The importance of HRM as a competitive tool and the relationship between HRM with organizational performance has been the subject of systematic research (Becker & Gerhart, 1996; Delery & Doty, 1996; Huselid, 1995). Cascio (1992) has suggested that contemporary organizations must gain competitive advantage through effective utilization of their HR. Researchers have also identified and examined certain HRM practices as crucial to developing organizational competitive advantage (Pfeffer & Veiga, 1999).

Some previous research has examined self-efficacy as an outcome that is driven by organizational care, training, education, and ethics (McAllister & Bigley, 2002), implying a potential influence of perceived corporate citizenship on job self-efficacy. Existing literature indicates that psychological contracts may vary due to the changes taking place at the business corporations (Bellou, 2007). When employees realize that their firm is unreliable and does not uphold their reciprocity, for example when it is ignorant about their career development, performs consumer fraud, or cheats its business partner, they are less likely to maintain their employment relationship with the firm in the long run (e.g., Schwepker, 2001; Valentine & Barnett, 2003), consequently weakening relational contracts and enhancing transactional contracts (e.g., to have no commitment to the firm and only remain in the firm for a short time) (Chen & Lin, 2012).

As a mirror of the organization’s reliability and the rule of reciprocity, the organization’s ethical citizenship (e.g., integrity) is reflected in how well it lives up to its obligations to employees (Thompson & Hart, 2006). In this sense, the misconduct by the organization often discourages relational contracts (e.g., psychological contract violation) among an organization’s workforce (Thompson & Hart, 2006), and can result in less commitment and efforts from workers (i.e., strong transactional contacts) (e.g., Appelbaum, Deguire, & Lay, 2005; Jaramillo, Mulki, & Solomon, 2006), and weak relational contracts with, for example, strong intention to find another job (e.g., Hart, 2005; Jaramillo et al., 2006). Collectively, work environments historically fraught with ethical
conflict inherently lead employees to question their personal competency, eventually devastating job self-efficacy (Chen & Lin, 2012).

Job self-efficacy expectations are directly associated with ethical perceptions of employees to have successfully navigated past work situations and circumstances provided by their firm (e.g., Jones, 1986). In other words, if ethical cues about the firm provided a history of trust in the organization (e.g., treat business partners fairly), then self-efficacy will be elevated. Conversely, job self-efficacy will be attenuated if the work environment provided by the firm reveals the questionable likelihood of success (e.g., fraudulent business practices).

Organizational policies and practices increasingly influence its employees. As proposed in social exchange theory (Blau, 1964), employees receive inducements for their contributions (Tsui, Pearce, Porter, & Tripoli, 1997) in the form of HRM practices, to which they reciprocate by exhibiting positive or negative behaviours depending on the attributions they make about the reasons why management adopts such HR practices (Nishii, Lepak, & Schneider, 2008, p. 503). Likewise, in another laboratory experiment (Probst, 2002) it was found that the threat of layoffs resulted in a lower quality of performance and in a greater violation of safety rules.

Following the preceding rationales concerning the effect of job self-efficacy on psychological contracts, this study further hypothesizes that such job self-efficacy is driven by employee satisfaction with HRM practices, which leads us to our next hypothesis:

**H1. SHRIM predicts PROSE**

![Figure 5.1 – Graphic representation of hypothesis 1 of this study](image-url)
5.2.2.a. Hypotheses concerning Job Satisfaction

In recent years, many suggestions have been made regarding the nature of the so-called ‘black box’, but many scholars emphasize the perceptions and experiences of employees as the main linking mechanism (Boselie et al., 2005; Bowen & Ostroff, 2004; Nishii & Wright, 2008). Perceived HR practices forge a psychological contract between employer and employee that in turn affects these perceptions and experiences (El-Jardali et al., 2009). Janus et al. (2007) suggest that non-monetary factors are important determinants of physician job satisfaction, perhaps more important than monetary incentives that may augment or reduce physicians’ base incomes.

Bamford and Griffin (2008) showed that high-satisfaction levels of participants with HRIM reflected the intrinsic interest of the jobs and the quality of personal relationships within multi-professional teams in the healthcare sector, reducing turnover15.

Gyekye (2005) found a positive association between job satisfaction and safety climate and reminds us that it is on record that when workers’ basic needs are met consistently, the workers express job satisfaction, which lead us to formulate the following hypothesis:

**H2.a1 SHRIM is a predictor of job satisfaction.**

Psychological contracts’ literature (e.g., Rousseau, 1995) proposes that employees will most likely want to reciprocate the companies’ interest in their well being and development, with higher levels of job satisfaction, organizational commitment and organizational citizenship behaviours (among others, e.g., job involvement), when they have positive perceptions regarding HRM policies and practices (Coyle-Shapiro & Kessler, 2002).

SET argues that when employees and supervisors/managers develop good workplace relationships, a reciprocal arrangement develops that not only benefits the individuals involved but also benefits the organisation as a whole (Cole, Schaninger, & Harris 2007). Xerri (2013) supports the idea that using SET as a theoretical lens, it is expected that under ideal conditions, the outcome of effective workplace relationships will be that

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15 High turnover in health facilities can impact negatively on the capacity to meet patient needs and healthcare quality. The direct impact usually incurs extra personnel costs including recruiting, selection, and training costs. Turnover also has negative impacts on the cohesiveness of the work unit, causes increased burdens for the remaining staff, decreases work satisfaction, and further impacts the quality of patient care (Hayes et al., 2006).
workers feel supported and therefore they develop a desire to give back to the organisation.

There seems to be a general trend in considering the employees’ perceptions and cognitions as an antecedent of employee attitudes, behaviours and even performance.

Regardless of the (lack of) empirical evidence between JS and OP, Job Satisfaction remains one of the key constructs studied in relation with OP. Meta-analyses find individual job satisfaction and job performance to be positively correlated (Petty et al., 1984; Judge et al., 2001) and in general, JS is seen as a route to high performance (Boxall & Purcell, 2003; Wright et al., 2003) and in the healthcare context, studies have emerged demonstrating the relationship between JS and quality of care (e.g., Aiken et al., 1994; Aiken et al., 1997).

Job satisfaction is also highly associated with personal mastery experiences, which are one of the social learning processes by which self-efficacy, is developed (Bandura, 1986, 1997). Hence we propose that:

**H2.a2  Job Satisfaction predicts PROSE**

A more extensive use of HR practices leads to more satisfied employees. This greater satisfaction ‘reflects’ on the clients, as satisfied employees will do more for them (Vermeeren, Kuipers, & Steijn, 2011). Moreover, satisfied workers are less likely to call in sick than less satisfied workers (Vermeeren et al., 2014)

The use of HR practices is related to improved financial outcomes, organizational outcomes and HR outcomes (Vermeeren et al., 2014). Vermeeren and colleagues (2014) showed that HR practices have a substantially larger impact on HR outcomes and organizational outcomes have than on financial outcomes. Employee attitudes especially job satisfaction, are seen as an important element in the ‘black box’ between HRM and performance, more specifically, in line with the assumption, our research proposes that:

**H2.a3  The different facets of Job Satisfaction mediate the relationship between SHRIM and PROSE.**
Figure 5.2 – Graphic representation of hypotheses 2a1, 2a2 and 2a3 of this study
5.2.2.b. Hypotheses concerning Organizational Commitment

Specifically, social exchange theory suggests that individuals are drawn to participate and invest in rewarding relationships, after which they become bound to return benefits or favours to their partners in exchange (Blau, 1983). High-performance HR practices, if implemented effectively, are likely to cause employees to perceive that their exchange relationship with the organization is characterized by a supportive environment based on investments in employee skills, regular unbiased performance feedback, availability of fair and attractive rewards for performance—including compensation and advancement opportunities—and mutual efforts toward meaningful goals (which employees may have helped in developing (Wright et al., 2003). In return, employees are likely to feel an obligation to the organization’s goals and so develop an affective bond with the organization itself—which may be expressed as affective commitment (Cohen, 2003).

Other factors like the perception of justice in access to training is considered an important factor of the development of a strong corporate culture and has been positively related with organizational commitment (Bartlett & Kang, 2004; Ehrhardt, Miller, Freeman, & Hom, 2011). Past studies have shown that giving employees an opportunity to learn develops a higher level of commitment among employees, compared to job security, monetary benefits, and job satisfaction (McNeese-Smith, 2001). In terms of SHRIM related with training, other studies found that a training program that is effective may also lead to employees forming an opinion that their organization demonstrates a willingness to invest in them, since the organization cares about them, which encourages a higher level of commitment among employees toward their organization (Brunetto, Farr-Wharton, & Shacklock, 2012), and that this trend happens in different cultural subsets (Ahmad & Bakar, 2003; Bartlett, 2001).

Gyekye (2005) reminds us that “it is on record that when workers’ basic needs are met consistently and the workers express stronger feelings of allegiance and loyalty to their organisations” (p. 292).

**H2.b1 Satisifaction with HRIM is a predictor of organizational commitment.**

Rhoades, Eisenber, and Armeli (2001) suggest that employees who are affectively

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16 Further, it has been found that employee commitment levels are high when they are given training opportunities and, hence, they display a higher rate of training participation (Bartlett, 2001; Dhar, 2015).
committed to their organisation are considered to usually be dedicated and loyal to the organisation. A sense of belonging is commonly associated with an employee’s emotional attachment to the organisation, and such employees have a tendency to be involved in organisational activities, are willing to work towards the attainment of organisational goals and feel they should remain with the organisation. Employees who want to remain with the organisation might also be more inclined than those who need to be with the organisation to maximise their performance and to help others when required (Meyer, Allen, and Gellatly 1990). In summary, employees who are affectively committed to the organisation are inherently led to be concerned about the organisation’s well being (Xerri & Brunetto, 2013). Affective commitment has been demonstrated to relate strongly and consistently to desired work outcomes, such as low absenteeism and organizational citizenship behaviours (Meyer et al., 2002). Similar findings exist in different occupational contexts (e.g., Brunetto et al., 2012; Ehrhardt et al., 2011) which leads us to that by generating satisfaction with training programs accessible to employees, employees feel the organizations has a desire to invest in them, thus increasing their commitment level.

Xerri and Brunetto (2013) suggest that employees who perceive to be managed with high-performance HR practices are likely to express increased affective commitment toward the organization based on a sort of obligatory reciprocation in their exchange relationship (social exchange theory); employees’ increased levels of commitment are then likely to affect important work behaviours since the attitudinal response of increased affective commitment alone is not likely to provide a balance in the benefits received by each party in the exchange relationship (i.e., the employees and the organization). Some further contribution on the part of employees would be required to level the field, given the relatively large organizational investment and great number of employee benefits associated with a high-performance HR system.

Also, employees who are committed to an organization are likely to more naturally behave in ways that reflect this affective bond. Committed employees are likely to act in ways that are in the best interest of the employer—specifically, through demonstrating, in their work behaviours, a personal connection and devotion to the organization’s activities and goals (Mowday, Porter, & Steers, 1982).

Organizational commitment has been proven to have a positive relationship with the
quality of service offered to customers (Chan, Ng, & Gian, 2011). This suggests that when employees develop a higher level of commitment toward their organization, they tend to perform well by providing better quality service leading to customer satisfaction and positive word of mouth publicity.

Although research in this matter has focused mainly affective commitment, based on the SET framework, we extend the premise to the other two types of commitment and propose that:

**H2.b2 Organizational Commitment predicts PROSE.**

There has been a growing degree of consensus among researchers that employees’ commitment to both organization and job constitutes a key factor that links between an organization’s HRM practices and employees’ work behaviours and outcomes including enhanced job performance, reduced turnover and absenteeism (e.g., Guest 1997; Meyer & Allen 1997; Whitener 2001).

There has been a growing degree of consensus among researchers that employees’ commitment to both organization and job constitutes a key factor that links between an organization’s HRM practices, employees’ work behaviours and outcomes including enhanced job performance, reduced turnover and absenteeism (e.g., Guest 1997; Meyer & Allen 1997; Whitener 2001). For example, Guest (1997) lays out the clear causal path that many other researchers in this field assume. Human resource systems are established; they influence workplace practice; employee attitudes change with increased work commitment; and there is a consequent effect on work behaviour and this in turn feeds through to the performance of the work unit and eventually of the firm (Dhar, 2015).

Affective commitment in particular has been shown to be affected by employees’ work and organizational experiences (e.g., HR practices) (Meyer et al., 2002).

As mentioned earlier, our study presumes that employees’ work commitment would play an important role in mediating the relationship between HRM practices and employees’ work behaviours and outcomes. In particular, we assume that employees’ Satisfaction with HRIM would influence the three components of organizational commitment, which would eventually affect employees’ self-efficacy:
H2.b3 The relationship between SHRIM and PROSE is mediated by the different components of Organizational Commitment.

Figure 5.3 – Graphic representation of hypotheses 2b1, 2b2 and 2b3 of this study
5.2.2.c. Hypotheses concerning Organizational Citizenship Behaviours

As previously mentioned, OCB refers to the activities and behaviour of employees that go beyond the call of duty; such behaviour is often thought to be a result of effective workplace relationships (Coyle-Shapiro & Kessler, 2002).

Several studies have been linking SHRIM with OCB. Edmondson & Lei (2014) refer that psychological safety in the workplace is one of the critical factors that enables people both to speak up about concerns at work and learn from errors. Low psychological safety generates perceptions that an organisation is toxic, unfair and set in its ways and in such working contexts, people will ‘keep their heads down’, ‘keep their mouths shut’ and ‘turn a blind eye’ as a rational response to danger (Wilde, 2014).

The underlying explanatory mechanism adopted to explain why individuals engage in OCB as extra-role behaviour is based on social exchange (Blau, 1964) and the norm of reciprocity (Gouldner, 1960). In other words, positive beneficial actions directed at employees by the organization create an impetus for employees to reciprocate in positive ways through their attitudes and/or behaviours. Although empirical evidence supports the relationship between JS and OCB (Bateman & Organ, 1983; Motowidlo & Van Scotter, 1986; Smith et al., 1983), Moorman (1991) concludes that this relationship may be a consequence of the underpinning concept of fairness, which subsequently prompted researchers to directly examine the role of organizational justice (Coyle-Shapiro et al., 2011) and in our case leads us to consider the antecedent power of SHRIM in this relationship.

Specifically, high-performance HRM practices can nurture a relational employment relationship, leading to internalization of organizational values and goals. This, in turn, would induce employees to engage in greater OCBs. However, conceptual and empirical work explaining the mechanism by which high-performance HRM practices relate to OCBs remains scarce (Nasurdin et al., 2015).

Emerging empirical research suggests that the type of relationship an individual perceives one has with one’s employer has important consequences for how the individual contributes to that relationship (Irving & Gellatly, 2001; O’Leary-Kelly & Schenk, 1999). Van Dyne and Ang (1998) found that perceived employer obligations was posi-
tively related to the helping dimension of OCB in a sample of professional Singaporean employees. Drawing on Barnard’s (1938) idea of ‘net anticipated satisfactions’, perceived employer obligations reflect anticipated benefits arising from the exchange relationship and it is the anticipation of future benefits that may motivate behaviour. Recognizing the reciprocal nature of the interplay between the employer and employees, employees may engage in OCB as a way of increasing the likelihood that the employer, over the longer term will fulfil its promises (Coyle-Shapiro, 2002).

The empirical evidence is strongly supportive in demonstrating a positive relationship between organizational inducements and employee attitudes and behaviour (Irving & Gellatly, 2001; Rhoades & Eisenberger, 2002). As employees will attempt to match their contributions with the inducements provided by the employer, one would expect employees’ who perceived greater inducements to reciprocate by engaging in OCB (Coyle-Shapiro & Dhensa, 2011).

In the meantime, an important way for linking SHRIM and OCB is through inferences drawn from how their firm treats people (e.g., McAllister & Bigley, 2002). When a firm treats various employees ethically17, the employees are encouraged to strive for a long-term employment relationship with the firm, suggesting a positive relationship between perceived ethical firm behaviour and relational contracts (Schwepker, 2001). On the other hand, employees prefer to keep a short-term relationship with their firm if the firm treats others unethically (Grover, 1993), suggesting a negative relationship between perceived ethical firm behaviour and transactional contracts. It is understandable that employees feel they may be mistreated by their firm one day if they see that the firm often treats others unethically, and therefore may not trust the organization (Coyle-Shapiro et al., 2011).

We are thus lead to the following hypothesis:

H2.c1 SHRIM predicts OCB.

Relationships based on mutual commitment (and therefore trust and reciprocity) influence OCB in two ways: first, by directly affecting the degree to which individuals engage in OCB and secondly, by influencing how an individual conceptualizes the bound-

---

17 Schwepker (2001) suggests this perception of ethic with impact in outcomes doesn’t solely focus employees but also other stakeholders.
aries of their job, which in turn, affects the extent to which individuals engage in citizenship behaviour. Coyle-Shapiro et al. (2011) propose that this finding is consistent with Organ’s (1988) reciprocation thesis and Morrison’s (1994) role definition argument and consequently, the two perspectives complement each other and together present a better foundation for understanding OCB than either alone.

The difference between the two perspectives lies in how individuals respond to a relationship based on mutual commitment. Consistent with Organ (1990), individuals engage in OCB as a form of reciprocity based on organizational treatment and also consistent with Morrison (1994), individuals enlarge their job responsibilities by incorporating those behaviours into their job. Taylor and Tepper (1999) in their empirical investigation of the relationship between organizational justice and mentoring label Morrison’s (1994) explanation as a role enlargement process and Organ’s (1990) as a role maintenance process. An alternative way of integrating the two perspectives is to extend our conceptualization of reciprocity beyond the current focus on employee attitudes and behaviour. The psychological contract literature suggests that employees may reciprocate employer treatment through a cognitive dimension; that is, adjusting their obligations to their employer (Coyle-Shapiro & Kessler, 2002). Recent empirical evidence also suggests that employees reciprocate perceived organizational support by enhancing their felt obligation to care about the organization’s welfare and to help the organization achieve its objectives (Eisenberger et al., 2001).

Further, Coyle-Shapiro and colleagues (2011) found that OCB significantly predicts job performance in accordance to previous studies (MacKenzie, Podsakoff, & Fetter, 1991; Organ, 1988) that elaborated the fact that OCB improves the ability of co-workers and managers to perform their jobs through more efficient planning, scheduling and problem-solving and contribution to service quality (Hui, Lee, Rousseau, 2004). This impact of worker behaviours has an added impact to OP when we consider that organizations that foster good citizenship behaviours are more attractive places to work and are able to hire and retain the best people (George & Bettenhausen, 1990).

Thus we propose the following hypothesis:

\[ H2.c2 \quad \text{OCB predicts PROSE} \]

OCB’s have been found to significantly moderate the relationship between HRM prac-
Reciprocity thus seems to contribute to the development of mutual obligations between people in the long term, which helps attaining positive environmental results and ultimately contributes towards organizational performance (Pretty, 2003). It is thus clear that the need to reciprocate may depend on the relationship that the worker has previously established with the organization, leading us to our third hypotheses concerning OCB:

**H2.c3** The relationship between SHRIM and PROSE is mediated by OCB.
5.2.3. Hypotheses concerning the mediation of the WOR between the SHRIM-PROSE relationship

Social exchange theorists have viewed the employment relationship as an exchange of loyalty and effort in return for organizational inducements (Rhoades & Eisenberger, 2002). Forms of inducements can include wages, fringe benefits, nature of the job, working conditions (March & Simon, 1958) as well as socioemotional benefits (Armeli et al., 1998). Eisenberger et al. (2001) argue, based on the norm of reciprocity, employees are motivated to compensate beneficial treatment by acting in ways that support the organization (Coyle-Shapiro, 2002).

Several authors, propose that the relationship between HRM and performance is not direct, but mediated by the so called “black box effect” and an important interpretation of the ‘black box’ implies that employee attitudes will mediate the link between HRM and performance (MacDuffie, 1995).

Macduffie (1995) argues that HRM practices can influence the psychological contract between employees and their employing organization; specifically, HRM practices that are considered supportive and rewarding will be perceived as inducements provided by the employer, which in turn, establishes a high-quality employment relationship (Nasurdin et al., 2015).

Wikhamn and Hall (2012) propose that in a labour market that regulates the employment relationship, employees may feel reciprocating care and attention by the organization is expected to be, and/or is more valuable if, directed towards performance rather than the organization per se - thus, obligation is more associated with role performance. Wikhamn and Hall’s (2012) results support the idea that performance-based attitudes are outcomes of reciprocation and that obligation governs the nature of the exchange in social relationships between employees and their organizations (Wikhamn & Hall, 2012).

Perceived employer obligations define the parameters of the relationship and signal to the employee the potential inducements that may be exchanged over the course of the relationship. As such, perceived promises signal the organization’s future intent and their willingness to invest in the relationship. However, the realization of these obliga-
tions is not unconditional but rather predicated on employees’ fulfilling their side of the exchange. The nature of some obligations may be on going during the relationship and temporarily discharged periodically as the relationship progresses. For example, an obligation to keep skills up to date may be temporarily fulfilled when an individual is given additional training but the obligation to continue to update skills in the future may exist. In addition, the nature of the exchange involves the contingent interplay between the individual and his/her employer. Therefore, an individual’s behaviour should be influenced by the anticipation of fulfilled promises, as the ‘actual’ fulfillment of those promises is contingent upon the employee’s contributions (Coyle-Shapiro, 2002).

Thus we propose that:

**H3.** The relationship between SHRIM and PROSES is mediated by the overall Worker-Organization Relationship

![Figure 5.5 – Graphic representation of hypothesis 3 of this study](image-url)
5.3. Conclusion

Table 5.1 summarizes the hypotheses formulated in this chapter.

*Table 5.1 – Synthesis of hypotheses*

<table>
<thead>
<tr>
<th>Hypotheses Number</th>
<th>Hypotheses</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1.</td>
<td>SHRIM predicts PROSE</td>
</tr>
<tr>
<td>H2.a1</td>
<td>SHRIM predicts Job Satisfaction</td>
</tr>
<tr>
<td>H2.a2</td>
<td>Job Satisfaction predicts PROSE</td>
</tr>
<tr>
<td>H2.a3</td>
<td>The different facets of Job Satisfaction mediate the relationship between SHRIM and PROSE.</td>
</tr>
<tr>
<td>H2.b1</td>
<td>SHRIM predicts Organizational Commitment</td>
</tr>
<tr>
<td>H2.b2</td>
<td>Organizational Commitment predicts PROSE</td>
</tr>
<tr>
<td>H2.b3</td>
<td>The relationship between SHRIM and PROSE is mediated by the different components of Organizational Commitment.</td>
</tr>
<tr>
<td>H2.c1</td>
<td>SHRIM predicts Organizational Citizenship Behaviours</td>
</tr>
<tr>
<td>H2.c2</td>
<td>Organizational Citizenship Behaviours predict PROSE</td>
</tr>
<tr>
<td>H2.c3</td>
<td>The relationship between SHRIM and PROSE is mediated by Organizational Citizenship Behaviours.</td>
</tr>
<tr>
<td>H3.</td>
<td>The relationship between SHRIM and the PROSE is mediated by the overall Worker-Organization Relationship</td>
</tr>
</tbody>
</table>
Chapter 6 - Research Methodology

“Don’t panic.”
- Douglas Adams, “The hitchhiker’s guide to the galaxy” (Vol. I)
Chapter 6 - Research Methodology
In this chapter we aim to explain the methodology used in carrying out the empirical approach, as to respond the research questions and testing the hypotheses that have been proposed in the literature review section later in the Results section. Questionnaire design as well as the main constructs and scales are explored, followed by an exploration of the collected data and the hypotheses testing.

Many authors support the notion that the epistemological positioning will have a decisive influence on the design a researcher implements (Thietart, 2001). Whereas pure positivism contends that only the scientific method using quantitative data can produce real scientific knowledge, constructivists maintain that the study of individuals and their institutions requires specific methods, different from those developed by the natural sciences. These views have led to the development of two perspectives seen as antagonistic: the quantitative and qualitative approach (Thietart, 2001), but “research approaches are not systematically attached to a particular paradigm” (Thietart, 2001, pp. 115). Thus in this study we developed a mainly quantitative approach to test a constructivist theory, choosing a research design that uses quantitative methods to assess latent (unobservable) constructs.

6.1 Research Design
In order to test the theoretical model of the mediated relationship of satisfaction with human resource issues with performance related self-efficacy, we had to develop a few constructs.

Abstract constructs such as these cannot be directly measured, which means that researchers need to find a way to measure these latent constructs with psychometric instruments or scales. We privileged the use of pre-existing and widely validated psychometric scales; however, our two main constructs (satisfaction with human resource practices and related issues and performance related self-efficacy) seemed to be lacking a corresponding scale, which lead us to construct specific instruments for both constructs, based on our literature review.

Structural equations modelling (SEM) is the adequate methodology to assess the relationships proposed by the previously presented model. This methodology allows us to estimate multiple interrelated dependency relationships between variables that are observed and latent (variables that are impossible to observe directly), as well as assessing
the theoretical relationships in a specified model (Byrne, 2010). SEM is an extension of
the general linear model that enables a researcher to test a set of regression equations
simultaneously. SEM software can test traditional models, but it also permits examina-
tion of more complex relationships and models, such as confirmatory factor analysis.
According to Maroco (2010) other advantages of the uses of SEM include clear and
testable assumptions underlying the statistical analyses, overall tests of model fit and
individual parameter estimate simultaneous tests; regression coefficients, means, and
variances may be compared simultaneously, even across multiple between-subjects
groups, measurement and confirmatory factor analysis models can be used to purge er-
ners, making estimated relationships among latent variables less contaminated by meas-
urement error, which is especially important in social sciences where latent variables are
common.

According to Hooper, Coughlan, and Muller (2008), SEM has become one of the tech-
niques of choice for researchers across disciplines and increasingly is a ‘must’ for re-
searchers in the social sciences where assessing whether a specified model ‘fits’ the data
is one of the most important steps in structural equation modelling (Yuan, 2005).

Data collection was attained through a self-responding questionnaire, since each set of
questions composes the measurement of each latent variable or construct. Questionnaire
design involved an exhaustive and detailed work in order to respond to the proposed
research model. Latent variables, factors or constructs are variables that are not directly
observed and their “existence” is shown to us by the way they manifest in items that are
indicative or – as the name indicates - manifest (Maroco, 2010). The latent variables in
this work are: satisfaction with human resource practices and related issues, job satisfac-
tion, helping and voice behaviours, organizational commitment and performance related
self-efficiency.

6.2 Data Collection Procedures
As a data collection procedure object, the questionnaire is an important tool in the re-
search process; as such, it is important to explain its relevance and role. The question-
naire is a communication mean between the researcher and the subjects, that aims at
introducing a series of similar questions to all respondents (Brace, 2008). The main ad-
vantages of using this method are its versatility, uniform measurement across subjects;
whereas the disadvantages lie with a possible low response rate (Brace, 2008; Hill &
Hill, 2005). In our research, data was collected during the month of January of 2012 in a large Hospital in the north of Portugal that employs circa 2000 workers, using both paper and electronic format. Paper format was distributed among workers that preferred this method or that did not have access to the intranet of the institution with envelopes so that responses could be sealed and anonymity ensured. Electronic questionnaires were divulged in the Hospital’s intranet.

The questionnaire is comprised of six parts (cf. Annex 1): 1) sociodemographic characteristics of the subject, 2) perceptions of performance related self-efficacy, 3) satisfaction with human resource, practices and related issues, 4) job satisfaction, 5) organizational commitment and 6) helping and voice behaviours. Each of these sections will be explained in detail in section 6.3.

6.2.1 Pilot testing
According to Brace (2008), doing a pilot test should be an integral part of the process, even if the questionnaire includes questions or items previously used in other studies. Brace (2008) makes the point that questionnaires are hardly ever optimized for the population in case in their first version, so it is relevant that a few subjects from the sample are allowed to survey the questionnaire so that the researcher may do the necessary alterations to ensure that subjects are truly responding what was originally meant (Ghiglione & Matalon, 1997).

In our study we conducted a cognitive pilot test (Brace, 2008), since we used the questionnaire in a small subset of subjects that were then invited to do a talked reflection in the contents and adequacy of items and item order, as to maximize comprehension of the intended constructs; this allowed us to realize if there were any issues with vocabulary or controversial or difficult questions.

There were no considerable issues in the pilot testing phase, safe for a few adjustments, that were mainly in terms of format, not substance, and permitted us to advance to the next stage of research expecting higher levels of reliability and validity of constructs (Brace, 2008).

6.3 Instruments
While selecting the instruments we considered the recommendations for the psychometric evaluation of measures used in organizational research by Meyer and Allen (1997).
These authors proclaim that scales should have acceptable internal validity; a minimum .70 alpha is considered, although as Cortina (1993) has noted, measures with more items will typically yield higher coefficient alpha values than those with fewer items, other things being equal.

This means it is preferable to choose smaller scales, given comparable alpha values and construct validity estimates. Scales should also be relatively stable across time, and items that measure one construct should not correlate highly with items intended to measure unrelated constructs, and correlate with other constructs that are expected theoretically, that is to say, convergent and discriminant validity should be considered (Fields, 2002).

Concerning two of the constructs of this study and given that no scale in our literature review matched our exact needs for this work, one scale was developed considering the existing literature: SHRIMQ (Satisfaction with Human Resources’ Issues Management Questionnaire) and another was adapted to match our specific needs: PROSES (Performance Related Observations of Self-Efficacy Scale). WOR is design as a composite measure of Job Satisfaction (assessed using the MSQ Weiss, Dawis, England, & Lofquist’s [1967] MSQ), Organizational Commitment (assessed via Meyer and Allen’s [1991] OCS) and Organizational Citizenship Behaviour (assessed with Van Dyne and LePine’s [1998] HVBS).

6.3.1 SHRIMQ – Satisfaction with Human Resources’ Issues Management Questionnaire
Satisfaction with Human Resources’ Issues Management is a construct that encompasses both human resources practices and management but also issues that are not traditionally and directly associated with the HRM, but are nonetheless expressions of HR policies, such as teamwork, inter-department cooperation and even information sharing. This construct came about during our review of the literature where several authors mentioned different issues that impact human resources performance, encompassing both areas that traditionally are HRM (e.g., staffing, performance appraisal) and areas that were not directly related, but are still in the HRM’s “jurisdiction” lato sensu (e.g., interdepartmental cooperation, information sharing, teamwork). Because this construct is apparently very context specific, it was necessary to construct a scale to assess it for this specific study.

Thus, a scale was developed based on West el al.’s (2006) and Buchan’s (2004) work
on the impact of good HRM practices in healthcare organizations, namely hospitals. The authors explore these dimensions of impactful HRM practices following Pfeffer’s (1998) work on ‘high commitment’ or ‘high performance’ HRM practices, and indicate that the areas of HRM that truly have an impact in performance in the healthcare context are: performance appraisal/management, training, decentralization, participatory mechanisms, team-based structures, employment security, staffing (recruitment/selection) and compensation.

Since the work conducted by the authors was designed at an organizational level and we are operating in a more individual level of analysis, in order to develop our questionnaire we started out by considering these conceptual dimensions, and then tried to create items that would fit in the Portuguese Hospital context, as well as including some characteristics mentioned in the literature (e.g., Buchan, 2004; Paauwe, 2009; West et al., 2006) as relevant to hospital workers, namely issues with cooperation among teams and information sharing.

The final set of items was the result of this review and the talked discussion process with hospital workers from our sample, resulting in a 24 item long, five-point (from “very dissatisfied” [1] to “very satisfied” [5]) Likert-type original scale, shown in table 6.1.

Table 6.1 – Indicators and construct of Satisfaction with Human Resources’ Issues Management

<table>
<thead>
<tr>
<th>Construct</th>
<th>Item number</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authors</td>
<td></td>
<td>Developed based on the reviews by Buchan (2004); Paauwe (2008); West et al. (2006)</td>
</tr>
<tr>
<td>Recruitment and Selection (Staffing)</td>
<td>1</td>
<td>The way people are chosen to work in this hospital</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>The way people are chosen to work in this ward/department</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>The way I was chosen to work in this Hospital</td>
</tr>
<tr>
<td></td>
<td>24</td>
<td>The way I was integrated in the department/institution.</td>
</tr>
<tr>
<td>Training</td>
<td>4</td>
<td>The quality and themes of the trainings the Hospital provides for me</td>
</tr>
<tr>
<td></td>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>-----------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>The quantity of the trainings the Hospital provides for me</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>The way my performance appraisal occurred (SIADAP or other)</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>The way that generally performance appraisal occurs (SIADAP or other)</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>The results of my performance appraisal (SIADAP or other)</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>The general results of performance appraisal (SIADAP or other)</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>The way generic information relative to the Hospital is conveyed to co-workers by the leaders</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>The way generic information directly/professionally related with me is conveyed to co-workers by the leaders</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>The way information relative to the Hospital circulates among colleagues</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>The way information relative to the Ward/department circulates among colleagues.</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>The way information relative to the Hospital circulates among colleagues/in the Hospital/ among my peers</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>The way my team works</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>The way teams in general work in the hospital</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>The way the team(s) I integrate work</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>The ways different departments/wards cooperate with each other</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>The way general information is shared among wards/departments</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>The way information about the patients is shared among different departments/wards</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>The package of pay benefits I am offered</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>The package of pay benefits this Hospital generally offers.</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>The remuneration and compensation system I’, included in (CAP or CIT)</td>
<td></td>
</tr>
</tbody>
</table>
6.3.2 MSQ - Minnesota Satisfaction Questionnaire

Job Satisfaction was assessed using the short version of the MSQ - Minnesota Satisfaction Questionnaire (Weiss, Dawis, England, & Lofquist, 1967), with 20 items. A 5-point Likert-type scale was used with choices that range from “very dissatisfied with this aspect of my job” (1) to “very satisfied with this aspect of my job” (5).

Fields (2002) mentions that over the years, and in several different investigations where the MSQ was used, different factor solutions were found and refers to Mathieu and Farr’s (1991) work where four factors emerged (satisfaction with working conditions, satisfaction with leadership, satisfaction with responsibility and satisfaction with extrinsic rewards) and Moorman’s (1993) work where two factors (one assessing satisfaction with intrinsic aspects of the job and the other assessing satisfaction with extrinsic aspects) yield. Spector (1997), however solely mentions two factors solutions from previous studies for the short version of the MSQ, reporting to the main tendency of the scale.

To assess Job Satisfaction we considered using several scales, from various articles and Fields’s (2002) work, choosing the Minnesota Satisfaction Questionnaire – Short Version (Weiss et al., 1967), since it presents several advantages: it is a well known and stable over the time instrument; previous researches had yielded coefficient alpha values ranging from .85 to .91; is a 20 item scale (in comparison with the 72 items of the JDI – Job Descriptive Index, for example) and the MSQ has been widely studied and validated (cf. Mathiew & Farr, 1991; Moorman, 1993).

The translated version of Weiss et al.’s (1967) 20 item scale proposed by Martins (2008) was used. Martins (2008) started with the translation of the instrument to Portuguese, followed by a backtranslation by an Englishman proficient in the Portuguese language, so to compare the original and the back translated items, therefore ensuring the reliability of the adaptation. After this process, a pilot study was conducted with a small group of workers of an industrial company, where the talked reflection around the scale leads to small final adjustments in terms of language; the same version of the instrument was further used in research by Sousa, Cruz and Martins (2011) and Martins and Proença (2012), with good psychometric properties and high reliability values (above $\alpha = 0.70$)
Table 6.2– Indicators and construct of Job Satisfaction

<table>
<thead>
<tr>
<th>Construct</th>
<th>Job Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authors</td>
<td>Weiss, Dawis, England &amp; Lofquist (1967)</td>
</tr>
<tr>
<td>Dimension</td>
<td>Item number</td>
</tr>
<tr>
<td>Intrinsic Job Satisfaction</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>2</td>
</tr>
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<td></td>
<td>3</td>
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<td>5</td>
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<tr>
<td></td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>20</td>
</tr>
<tr>
<td>Extrinsic Job Satisfaction</td>
<td>6</td>
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<tr>
<td></td>
<td>7</td>
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<td>9</td>
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<td>11</td>
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<tr>
<td></td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>19</td>
</tr>
<tr>
<td>General Job Satisfaction</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>17</td>
</tr>
</tbody>
</table>

6.3.3 OCS - Organizational Commitment Scales
Employees’ levels of commitment to their organization were measured using the revised version of Meyer and Allen’s (1997) 19 item scale: Affective, Normative and Continuance Commitment Scales (Meyer & Allen, 1997). A 7-point Likert-type scale was used for measuring respondents’ level of agreement with each statement (from 1—strongly disagree to 7—strongly agree). In the authors’ version, the Affective Commitment Subscale contains 6 items, such as “I would be very happy to spend the rest of my career in this organization”, the Normative Commitment Subscale integrates 6 items, such as “I’d feel guilty if I left my organization now” and the Continuance Commitment Subscale integrates 7 items, such as “I believe I have too few options to consider leaving this organization”.

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Meyer and Allen’s (1997) model was the most referenced in the literature consulted, and the most used in relational studies (Allen & Meyer, 1990).

Hence, the 19 item version of this instrument (Meyer & Allen, 1997) was chosen, in conformity with the above mentioned model (cf. table 6.3). This measure has the advantage of discriminating and dealing with the different dimensions of commitment instead of measuring essentially one kind (usually affective commitment), and had previously reported alpha values of $0.77 < \alpha < 0.88$ for Affective Commitment, $0.65 < \alpha < 0.86$ for Normative Commitment, $0.64 < \alpha < 0.86$ for Continuance Commitment (Fields, 2002).

In Portugal, this scale has been previously used in researches developed by Ferreira (2005) and Martins (2008).

Ferreira (2005) analyzed the relation between individual and organizational characteristics and Organizational Commitment in a sample of doctors and nurses in six different hospitals, as well as if these relations were mediated by the management model (traditional, corporate or private) and by the professional group. This author used a version of the original Meyer and Allen (1997) scales with a total of 23 items, reporting a good internal consistency for the three components.

Martins (2008) analyzed the impact of the promotion of Accreditation of Prior Learning (APL) Processes by organizations in the worker-organization relationship, namely in terms of Organizational Commitment, Organizational Citizenship Behaviors and Job Satisfaction. This author used the 19 item revised version of this instrument (Meyer & Allen, 1997) in a sample of 135 workers of two major industrial companies in the north of Portugal.

In this study we used Martins’ (2008) version, which was developed with a process of translation, backtranslation, pilot study with talked reflection and an assessment of the psychometric properties of the instrument. The analysis of the instrument was furthered by Martins, Rebelo and Tomás (2012) with a confirmatory factor analysis, with good results regarding the instrument’s psychometric properties.
<table>
<thead>
<tr>
<th>Construct</th>
<th>Organizational Commitment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authors</td>
<td>Meyer and Allen (1997)</td>
</tr>
<tr>
<td>Dimension</td>
<td></td>
</tr>
<tr>
<td>Item number</td>
<td>Item</td>
</tr>
<tr>
<td>Affective Commitment</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>This organization has a great deal of personal meaning to me.</td>
</tr>
<tr>
<td>2</td>
<td>I do not feel a strong sense of belonging in my organization.*</td>
</tr>
<tr>
<td>3</td>
<td>I would be very happy to spend the rest of my career in this organization.</td>
</tr>
<tr>
<td>6</td>
<td>I really feel as if this organization’s problems are my own.</td>
</tr>
<tr>
<td>9</td>
<td>I do not feel emotionally attached to this organization.*</td>
</tr>
<tr>
<td>16</td>
<td>I do not feel “part of the family” at my organization.*</td>
</tr>
<tr>
<td>Normative Commitment</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Even if it were to my advantage, I do not feel it would be right to leave my organization now.</td>
</tr>
<tr>
<td>5</td>
<td>I would not leave my organization right now because I have a sense of obligation to the people in it.</td>
</tr>
<tr>
<td>10</td>
<td>I owe a great deal to this organization.</td>
</tr>
<tr>
<td>11</td>
<td>This organization deserves my loyalty.</td>
</tr>
<tr>
<td>12</td>
<td>I do not feel any obligation to remain with my current employer.*</td>
</tr>
<tr>
<td>17</td>
<td>I would feel guilty if I left my organization now.</td>
</tr>
<tr>
<td>Continuous Commitment</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>One of the few negative consequences of leaving this organization would be the scarcity of available alternatives.</td>
</tr>
<tr>
<td>8</td>
<td>One of the major reasons I continue to work for this organization is that leaving would require a considerable personal sacrifice; another organization may not match the overall benefits I have here.</td>
</tr>
<tr>
<td>13</td>
<td>It would be very difficult to leave this organization now, even if I wanted to.</td>
</tr>
<tr>
<td>14</td>
<td>I believe that I have too few options to consider leaving this organization.</td>
</tr>
<tr>
<td>15</td>
<td>If I had not put so much of myself into this organization, I might consider working elsewhere.</td>
</tr>
<tr>
<td>18</td>
<td>Right now, staying with my organization is a matter of necessity as much as desire.</td>
</tr>
<tr>
<td>19</td>
<td>Too much of my life would be disrupted if I decided I wanted to leave my organization now.</td>
</tr>
</tbody>
</table>
6.3.4 HVBS - Helping and Voice Behaviours Scale

Extra-Role Organizational Citizenship Behaviour was assessed using the 13-item Helping and Voice Behaviours Scale (Van Dyne & LePine, 1998). Responses to all items were assessed on 7-point Likert-type scales (1 - strongly disagree to 7 - strongly agree). The Helping Behaviours original subscale contains 7 items such as “I volunteer to do things for this work group” and the Voice Behaviours subscale integrates 6 items, such as “I develop and make recommendations concerning issues that affect this work group”.

The Helping and Voice Behaviours Scale (Van Dyne & LePine, 1998) was chosen for several reasons for this study. First of all, and bearing in mind the nature of our investigation we found it preferable to use scales that could be applied directly to the subjects and not involve other participants for practicality reasons, given our sample size and the fact that several workers work in more than one service of the Hospital (e.g. doctors) or work in different areas from their supervisors (e.g. administrative staff). In that sense we eliminated a priori all the scales that were supposed to be only responded by supervisors or co-workers (e.g., Smith et al., 1983 Organizational Citizenship Behaviour scale). The fact that the scale is rather specific also allows us to stray from the current theoretical and methodological controversies in this area (regarding what employees actually consider to be “in-role” or “extra-role” behaviours, and therefore a citizenship behaviour or their implied duty, inhering the very fuzziness of the concepts “role” and “job” themselves (Morrison, 1994; Organ, 1997).

This scale is more parsimonious than most (13 items, cf. table 6.4) and reported very good coefficient alpha values by other researchers of 85<α<.95 for helping behaviours and .82<α<.96 for voice behaviours (Fields, 2002).

The Portuguese version of the instrument used in this study was the one developed by (Martins, 2008), using the same method referred for the other adapted scales with translation, back-translation by a native speaker with good knowledge of Portuguese, pilot study with talked reflection and an assessment of the scale’s psychometric properties with good results. This version has been further used in research (e.g. Proença & Martins, 2013).
Table 6.4 – Indicators and construct of Helping and Voice Behaviours

<table>
<thead>
<tr>
<th>Construct</th>
<th>Helping and Voice Behaviours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authors</td>
<td>Van Dyne and LePine (1998)</td>
</tr>
<tr>
<td>Dimension</td>
<td>Item number</td>
</tr>
<tr>
<td></td>
<td></td>
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</tbody>
</table>

6.3.5 PROSES – Performance Related Observations of Self Efficacy Scale

Bandura (2006), in his “Guide for constructing self-efficacy scales”, considered that “there is no all-purpose measure of perceived self-efficacy. The “one measure fits all” approach usually has limited explanatory and predictive value because most of the items in an all-purpose test may have little or no relevance to the domain of functioning.”
Thus, although Chen et al. (2001) produced a “New General Self Efficacy Scale”, constituted of a parsimonious 8 items, we considered that an adjustment needed to be made to the specific type of self-efficacy we were assessing, given the fact that this is a highly context-specific construct. Thus we adjusted the 5 items that we considered to be most relatable to performance and adapted the “New General Self Efficacy Scale” as the Performance Related Observations of Self Efficacy Scale (PROSES) that includes the items described in table 6.5.

As jobs become broader and more complex, measuring dispositional constructs that can predict motivational reactions and behaviors across a variety of work domains becomes increasingly important (e.g., Judge et al., 1997; Judge, Erez, & Bono, 1998; Chen et al., 2001).

Specific self-efficacy has been shown to be an important predictor of performance across different studies and settings (Stajkovic & Luthans, 1998); arguments have been made that the effects of self-efficacy on performance may be partly a bandwidth issue, as self-efficacy matters more in the presence of distal variables for task performance than global job performance. This notion fits rather well with the bandwidth–fidelity debate (e.g., Cronbach & Gleser, 1966), which would suggest that self-efficacy, given its relatively task-specific nature, is likely to be a stronger predictor of narrow performance measures such as task performance (Judge et al., 2007).
Table 6.5 – Indicators and construct of Performance Related Observations of Self Efficacy

<table>
<thead>
<tr>
<th>Construct</th>
<th>Performance Related Observations of Self Efficacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authors</td>
<td>Adapted from Bandura (2006) and Chen, Gully, and Eden (2001)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Item number</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>In my opinion, I contribute to the success of the Organization</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>I think I’m having a good performance in the Organization</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>I think I’m a good worker</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>On average I feel that I work harder than my colleagues</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>I feel that I have the right conditions to do my best in this organization</td>
</tr>
</tbody>
</table>

6.4 Sampling

Any empirical research encompasses data collection (Hill & Hill, 2005). In this research, the population in study is composed by all types of individuals that work for a hospital; these encompass clinical and non clinical staff.

Given the dimension of the population, difficulties with data collection and the need to eliminate other possible parasite variables from our results such as organizational culture or hospital case mix, we chose to work with a single institution.

We used a convenience sample, in the sense that only one institution was considered in our study and participants were not enrolled via a randomized approach, but rather on availability and volunteering to respond. However, there are some sampling issues that one must always consider when deciding how many subjects suffice in a research. Hill and Hill (2005) propose a few rules of thumb for determining the minimum dimension of a sample so that an adequate statistical analysis may be developed. Thus we considered that in this research more than one statistical analysis was bound to be applied, and we took into consideration that in researches where the number of independent (or exogenous, in the case of structural equations modelling) variables is $K$, the minimum size ($N$) of the sample must be $15K$, and when multiple regression analysis is used $50K$ must
be considered in order for the test results to be generalizable. In our case, 200 subjects was the minimum sample threshold.

Where structural equations modelling is considered, different authors suggest diverse sample sizes, varying between 5 and 20 subjects per scale item (observable or manifest variable) (cf. Schumacker & Lomax, 2010 for a comprehensive view on this matter). Since we use many different questionnaires, we considered our longest questionnaire (SHRIMQ - 24 items). Using the most demanding criteria, our sample should be composed of a minimum of 480 subjects and using the least demanding criteria, 120 subjects.

A convenience sampling method was used, where both paper and electronic questionnaires were distributed among all workers, and information was conveyed in the Hospital’s intranet. Paper questionnaires were distributed among workers that preferred this method or that did not have access to the intranet of the institution. Envelopes were delivered with the questionnaires, so that responses could be sealed and anonymity ensured. From the circa 2000 workers of the Hospital at the time, 942 subjects replied, composing a 48.3% response rate.

6.5 Conclusion
The constructs in our study are considerably abstract, which makes the use of SEM appropriate to assess and evaluate the relationships suggested by our model. SEM methodology allows us to estimate multiple interrelated dependency relationships between variables that might be latent or observable (Byrne, 2010; Klein, 2011; Maroco, 2010; Schumaker & Lomax, 2010). Thus, SEM allows us to observe how independent (exogenous) variables may explain the dependent (endogenous) variables, as well as their relative importance, by giving us all the indicators associated with a certain phenomenon (Klein, 2011). The process begins with formulating a theoretical model that establishes relationships between a set of variables and this must be duly based in theory (Maroco, 2010). In this chapter a detailed review of the literature concerning the scales used to assess the constructs of our model was presented, which allowed us to choose the most appropriate models for our study. These instruments were either new (although based in pre-existing scales) or the Portuguese version of previously used instruments, which made it necessary to validate their structure and content.

Self-reporting scales were our data collection method, since the different sets of ques-
tions enable the assessment of each construct or latent variable. Questionnaire design involved and exhaustive preparation in order to allow for a precise, reliable, adequate and valid data collection as to permit the evaluation of the pre-established theoretical model. Our convenience sampling allowed for a response rate of circa 48.3%.
Chapter 7 - Data Analysis

“Atticus told me to delete the adjectives and I’d have the facts”
- Harper Lee, “To kill a mocking bird”
Chapter 7 - Data Analysis

In this chapter, the psychometric properties (validity and reliability) of the chosen scales are assessed, followed by an exploratory analysis of the data and finally structural equations modelling is used to test the hypotheses. The results consider the indications of Hair, Black, and Anderson (2009), and are presented in such a way that results are accompanied by the explanation of our options in data analysis, as to permit a better understanding of these.

7.1 Psychometric Properties of the Instruments

Assessing the psychometric properties of instruments/scales aims at ensuring the quality of the measurement of latent variables in the study and represents an essential part of the best effort to ensure that the right constructs are being focused, and that the empirical indicators represent a certain construct (Hair et al., 2009). Instrument-related procedures in this study include construct validity and reliability testing.

Latent constructs, unlike observed variables (e.g. height, weight, speed, etc.), are inaccessible to direct measurement and therefore require the use of psychometric instruments. These instruments – usually scales or questionnaires – are comprised of different items that contribute to our understanding of the subject’s level and perception of said construct (Maroco, 2010).

Construct validity estimates the ability of an instrument to measure the underlying construct of interest (Ellenbecker & Byleckie, 2005). Exploratory factor analysis (EFA) has traditionally been employed by researchers as a tool to determine the number of underlying dimensions in a data set by grouping together variables that are correlated (Tabachnik & Fidell, 2007).

Factor analysis is a multivariate analysis procedure that attempts to identify any underlying “factors” (or “components”, when the extraction method is principal components analysis) that are responsible for the covariation among a group of independent variables. The goals of a factor analysis are typically to reduce the number of variables used to explain a relationship or to determine which variables show a relationship amongst each other. Like a regression model, a factor is a linear combination of a group of vari-
bles (items) combined to represent a scale measure of a concept or construct. To successfully use a factor analysis, though, the variables must represent indicators of some common underlying dimension or concept such that they can be grouped together theoretically as well as mathematically.

Psychometric instruments can be self or other-reporting, but the vast majority of them are self-reporting scales (Fields, 2002).

Concerning the exploratory factor analysis (EFA), and according to Hair et al. (2009), the following results were reported: Keiser-Meyer-Olkin (KMO) indicator and Bartlet’s test of sphericity; factor loadings, communalities and explained variance.

The KMO indicator and Bartlet’s test of sphericity are preliminary measurements that ensure the researcher that scales are fit for factor analysis since correlations between the variables is neither excessive nor lacking. According to Hair et al. (2009), the KMO should be above 0.8 and Bartlet’s test should be significant. According to Hair et al. (2009), three criteria should be observed when considering whether to retain or eliminate items in a scale: factor loadings below 0.3 in any factor or component, communalities below 0.5, and the lack of contribution of the item to the internal consistency or reliability of the scale.

In our study, principal factors extraction with varimax rotation was performed on the 20 items from the MSQ (Weiss et al., 1967), on the 19 items of the Affective, Normative and Continuance Commitment Scale (Meyer & Allen, 1997) as well as the 24 items of the SHRIMQ and the 5 items of the PROSES. Oblique rotation was used on the 13 items of the Helping and Voice Behaviours Scale (Van Dyne & LePine, 1998): theory suggests that good citizenship is demonstrated by high levels of both substantive categories (Van Dyne, Graham, & Dienesch, 1994), thus, Helping and Voice Behaviours should be positively correlated rather than orthogonally related, as is the present case (r=.78, p<.01).

Principal components extraction was used prior to confirmatory factor analysis to estimate number of factors, presence of outliers, absence of multicollinearity and factorability of the correlation matrices (Tabachnick & Fidell, 2007). The principal components analysis was, therefore, used as an initial step of the Factor Analysis that produced the prevailing results, since the purpose of our work was a “theoretical solution uncontami-
nated by unique and error variability" and we had designed our study “on the basis of underlying constructs […] expected to produce scores in the observed variables” (Tabachnik & Fidell, 2007, p. 635).

Confirmatory Factor Analysis (CFA), ensued the EFA procedures. We decided to use CFA procedures in order to ensure that the measurement models of the scale had a good fit with the sample and to check for the possibility of better fit of other factor solutions. According to the indications provided by Maroco (2010), the following results were reported: factor structure including regression weights and correlations between the latent variables; model chi-square and relative/normed chi square ($\chi^2$/degrees of freedom), degrees of freedom; root mean square error of approximation (RMSEA) and it’s higher and lower confidence intervals, Goodness of fit index (GFI) and comparative fit index (CFI).

The Chi-Square value is the traditional measure for evaluating overall model fit and, “assesses the magnitude of discrepancy between the sample and fitted covariances matrices” (Hu & Bentler, 1999, p. 2). A good model fit would provide an insignificant result at a 0.05 threshold, thus the Chi-Square statistic is often referred to as either a ‘badness of fit’ or a ‘lack of fit’ measure (Kline, 2011). Due to the restrictiveness of the Model Chi-Square, researchers have sought alternative indices to assess model fit. One example of a statistic that minimises the impact of sample size on the Model Chi-Square is Wheaton, Muthen, Alwin, and Summers’s (1977) relative/normed chi-square ($\chi^2$/df). Although there is no consensus regarding an acceptable ratio for this statistic, recommendations range from as high as 5.0 (Wheaton et al., 1977) to as low as 2.0 (Tabachnick & Fidell, 2007). The root mean square of approximation (RMSEA) tells us how well the model, with unknown but optimally chosen parameter estimates would fit the population’s covariance matrix (Byrne, 2010). In recent years it has become regarded as “one of the most informative fit indices” due to its sensitivity to the number of estimated parameters in the model. In other words, the RMSEA favours parsimony in that it will choose the model with the lesser number of parameters. A cut-off value close to .06 (Hu & Bentler, 1999) or a stringent upper limit of 0.07 (Steiger, 2007) seems to be the general consensus amongst authorities in this area. The Goodness-of-Fit statistic (GFI) calculates the proportion of variance that is accounted for by the estimated population covariance (Tabachnick & Fidell, 2007). This statistic ranges from 0 to and traditionally an omnibus cut-off point of 0.90 has been recommended for the GFI. The Comparative
Fit Index (Bentler, 1990) is a revised form of the NFI which takes into account sample size (Byrne, 2010) that performs well even when sample size is small (Tabachnick & Fidell, 2007); today this index is included in all SEM programs and is one of the most popularly reported fit indices due to being one of the measures least effected by sample size (Fan, Thompson, & Wang, 1999). A value of CFI ≥ 0.95 is presently recognised as indicative of good fit (Hu & Bentler, 1999).

Reliability was assessed using Cronbach’s alpha, a widely used measurement of internal consistency for psychometric instruments; this indicator assesses how much a set of items is measuring the same construct (Maroco, 2010).

Because SEM was used to conduct a CFA and further the analysis on the validity of the scales, average variance extracted (AVE) and composite reliability (CR) were also held in account: AVE assesses convergent validity, that is to say AVE tests if the items that define each construct load properly in that same construct, i.e. does the latent variable account for its variance (Maroco, 2010); CR is a different measure for internal consistency, when SEM is used to assess validity: CR indicates how much the items of the scale are reflexive of the latent variable (Fornell & Lacker, 1984).

7.1.1 SHRIMQ – Satisfaction with Human Resources’ Issues Management Questionnaire
Concerning the SHRIMQ, the hypothesized dimensions were almost integrally proven to be valid in the present sample: of the eight originally constructed dimensions 6 were verified as designed and 2 dimensions (team-based structure and team-based cooperation) fused into a single one (teamwork). Thus, seven components were extracted using principal components analysis with varimax rotation, accounting for 77.4% of the variance. Communality values tended to be high, well above the cut off point of 0.32 (Tabachnick & Fidell, 2007) for inclusion of a variable in interpretation of a factor. Two items were removed from the analysis since they either loaded very closely in more than one factor (with a difference lesser than .01). Loadings of variables on factors and communalities are shown in table 7.1, as well as the explained variance of each subscales. Variables are ordered and grouped by size of loading to facilitate interpretation.
Subscales were named according to what had been designed originally, since very few changes resulted from the analysis (none in most cases) and apart from the two aforementioned dimensions that fused, no items shifted subscales. Thus, scales were named:

1. Satisfaction with Information (referring to the satisfaction with the way information that does not concern patients is conveyed in the organization);
2. Satisfaction with performance appraisal (regarding satisfaction with the process and results of performance appraisal in the organization);
3. Satisfaction with pay (considering satisfaction with compensation and benefits the organization offers);
4. Satisfaction with service cooperation (regarding satisfaction with the way different departments or services cooperate and share information that is general or concerns patients);
5. Satisfaction with recruitment and selection (concerning satisfaction with staffing practices);
6. Satisfaction with teamwork (satisfaction with the way respondents’ teams work);
7. Satisfaction with training (satisfaction with the contents and quantity of training offered by the Hospital).
Table 7.1 - Varimax rotated component matrix based on correlations among the items of the SHRIMQ and communalities ($h^2$).

<table>
<thead>
<tr>
<th>Item</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>$h^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>12. The way information relative to the Hospital circulates among colleagues.</td>
<td>0.82</td>
<td>0.13</td>
<td>0.12</td>
<td>0.17</td>
<td>0.13</td>
<td>0.07</td>
<td>0.15</td>
<td>0.71</td>
</tr>
<tr>
<td>13. The way information relative to the Ward/department circulates among colleagues.</td>
<td>0.79</td>
<td>0.10</td>
<td>0.09</td>
<td>0.15</td>
<td>0.08</td>
<td>0.27</td>
<td>0.14</td>
<td>0.76</td>
</tr>
<tr>
<td>14. The way information relative to the Hospital circulates among colleagues/in the Hospital/among my peers</td>
<td>0.75</td>
<td>0.14</td>
<td>0.11</td>
<td>0.24</td>
<td>0.12</td>
<td>0.14</td>
<td>0.09</td>
<td>0.47</td>
</tr>
<tr>
<td>11. The way generic information directly/professionally related with me is conveyed to co-workers by the leaders.</td>
<td>0.72</td>
<td>0.30</td>
<td>0.16</td>
<td>0.16</td>
<td>0.17</td>
<td>0.14</td>
<td>0.09</td>
<td>0.86</td>
</tr>
<tr>
<td>10. The way generic information relative to the Hospital is conveyed to co-workers by the leaders.</td>
<td>0.69</td>
<td>0.33</td>
<td>0.10</td>
<td>0.17</td>
<td>0.16</td>
<td>0.11</td>
<td>0.15</td>
<td>0.86</td>
</tr>
<tr>
<td>8. The results of my performance appraisal (SIADAP or other).</td>
<td>0.16</td>
<td>0.88</td>
<td>0.06</td>
<td>0.05</td>
<td>0.11</td>
<td>0.06</td>
<td>0.08</td>
<td>0.82</td>
</tr>
<tr>
<td>9. The general results of performance appraisal (SIADAP or other).</td>
<td>0.15</td>
<td>0.86</td>
<td>0.13</td>
<td>0.11</td>
<td>0.13</td>
<td>0.06</td>
<td>0.07</td>
<td>0.82</td>
</tr>
<tr>
<td>6. The way my performance appraisal occurred (SIADAP or other).</td>
<td>0.21</td>
<td>0.86</td>
<td>0.10</td>
<td>0.07</td>
<td>0.09</td>
<td>0.04</td>
<td>0.14</td>
<td>0.83</td>
</tr>
<tr>
<td>7. The way that generally performance appraisal occurs (SIADAP or other).</td>
<td>0.21</td>
<td>0.84</td>
<td>0.13</td>
<td>0.10</td>
<td>0.14</td>
<td>0.07</td>
<td>0.15</td>
<td>0.82</td>
</tr>
<tr>
<td>22. The package of pay benefits this Hospital generally offers.</td>
<td>0.10</td>
<td>0.11</td>
<td>0.89</td>
<td>0.11</td>
<td>0.08</td>
<td>0.05</td>
<td>0.05</td>
<td>0.69</td>
</tr>
<tr>
<td>21. The package of pay benefits I am offered.</td>
<td>0.14</td>
<td>0.13</td>
<td>0.88</td>
<td>0.14</td>
<td>0.10</td>
<td>0.06</td>
<td>0.07</td>
<td>0.71</td>
</tr>
<tr>
<td>23. The remuneration and compensation system I’m, included in (CAP or CIT).</td>
<td>0.15</td>
<td>0.12</td>
<td>0.83</td>
<td>0.08</td>
<td>0.02</td>
<td>-0.01</td>
<td>0.12</td>
<td>0.77</td>
</tr>
<tr>
<td>19. The way general information is shared among wards/departments.</td>
<td>0.32</td>
<td>0.10</td>
<td>0.12</td>
<td>0.81</td>
<td>0.13</td>
<td>0.11</td>
<td>0.12</td>
<td>0.76</td>
</tr>
<tr>
<td>18. The ways different departments/wards cooperate with each other.</td>
<td>0.17</td>
<td>0.10</td>
<td>0.13</td>
<td>0.81</td>
<td>0.09</td>
<td>0.22</td>
<td>0.08</td>
<td>0.70</td>
</tr>
<tr>
<td>20. The way information about the patients is shared among different departments/wards.</td>
<td>0.21</td>
<td>0.09</td>
<td>0.11</td>
<td>0.76</td>
<td>0.17</td>
<td>0.05</td>
<td>0.18</td>
<td>0.87</td>
</tr>
<tr>
<td>2. The way people are chosen to work in this ward/department.</td>
<td>0.15</td>
<td>0.15</td>
<td>0.20</td>
<td>0.11</td>
<td>0.78</td>
<td>0.24</td>
<td>0.02</td>
<td>0.86</td>
</tr>
<tr>
<td>1. The way people are chosen to work in this hospital.</td>
<td>0.16</td>
<td>0.18</td>
<td>0.18</td>
<td>0.16</td>
<td>0.77</td>
<td>0.06</td>
<td>0.07</td>
<td>0.77</td>
</tr>
<tr>
<td>3. The way I was chosen to work in this Hospital.</td>
<td>0.12</td>
<td>0.08</td>
<td>-0.12</td>
<td>0.08</td>
<td>0.63</td>
<td>0.13</td>
<td>0.12</td>
<td>0.82</td>
</tr>
<tr>
<td>15. The way my team works.</td>
<td>0.24</td>
<td>0.07</td>
<td>0.05</td>
<td>0.17</td>
<td>0.11</td>
<td>0.87</td>
<td>0.05</td>
<td>0.71</td>
</tr>
<tr>
<td>17. The way the team(s) I integrate work.</td>
<td>0.24</td>
<td>0.11</td>
<td>0.03</td>
<td>0.15</td>
<td>0.17</td>
<td>0.85</td>
<td>0.10</td>
<td>0.85</td>
</tr>
<tr>
<td>4. The quality and themes of the trainings the Hospital provides for me.</td>
<td>0.21</td>
<td>0.19</td>
<td>0.12</td>
<td>0.15</td>
<td>0.16</td>
<td>0.09</td>
<td>0.84</td>
<td>0.84</td>
</tr>
<tr>
<td>5. The quantity of the trainings the Hospital provides for me.</td>
<td>0.23</td>
<td>0.19</td>
<td>0.13</td>
<td>0.20</td>
<td>0.05</td>
<td>0.07</td>
<td>0.84</td>
<td>0.74</td>
</tr>
</tbody>
</table>

% of Variance accounted for

15.9%  15.6%  11.5%  10.3%  8.5%  8.1%  7.5%  7.0%
We then proceeded to the confirmatory procedures that yielded the goodness of fit indices values obtained for this model structure indicating satisfactory values for all the estimated indices (table 7.2).

**Table 7.2 - Goodness of fit indices obtained in the confirmatory factor analysis of the SHRMQ**

<table>
<thead>
<tr>
<th>Structure derived from the exploratory analysis</th>
<th>$\chi^2$</th>
<th>df.</th>
<th>$\chi^2$/df</th>
<th>GFI</th>
<th>CFI</th>
<th>RMSEA</th>
<th>Confidence interval (90%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(22 items)</td>
<td>930.01**</td>
<td>188</td>
<td>4.95</td>
<td>.92</td>
<td>.94</td>
<td>.065</td>
<td>.06-.07</td>
</tr>
</tbody>
</table>

* $p<0.05$ ; ** $p<0.01$ ; *** $p<0.001$

![Diagram of the SHRMQ model](image)

Figure 7.1 – Confirmatory Factor Analysis of the SHRMQ model obtained with the exploratory factor analysis procedures.
7.1.2 Minnesota Satisfaction Questionnaire – MSQ (short version)

Regarding the MSQ, two factors were extracted using principal components analysis with varimax rotation, accounting for 58.73% of the variance. Communality values tended to be high, with a cut-off point of 0.32 (Tabachnick & Fidell, 2007) for inclusion of a variable in interpretation of a factor. Eleven of the twenty variables loaded very closely in both factors (with a difference lesser than .01) or had communalities below the cut-off point, which led us to eliminate them from the analysis. Loadings of variables on factors and communalities are shown in Table 7.3. Variables are ordered and grouped by size of loading to facilitate interpretation.

Table 7.3 - Varimax rotated component matrix based on correlations among the items of the MSQ, communalities ($h^2$), and explained variance.

<table>
<thead>
<tr>
<th></th>
<th>Intrinsic</th>
<th>Extrinsic</th>
<th>$h^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. The chance to do things for other people.</td>
<td>0.79</td>
<td>-0.11</td>
<td>0.41</td>
</tr>
<tr>
<td>2. The feeling of accomplishment I get from the job.</td>
<td>0.78</td>
<td>0.12</td>
<td>0.62</td>
</tr>
<tr>
<td>4. The chance to work alone on the job.</td>
<td>0.77</td>
<td>0.17</td>
<td>0.63</td>
</tr>
<tr>
<td>5. The chance to be “somebody” in the community.</td>
<td>0.74</td>
<td>0.13</td>
<td>0.62</td>
</tr>
<tr>
<td>1. Being able to keep busy all the time.</td>
<td>0.62</td>
<td>0.17</td>
<td>0.56</td>
</tr>
<tr>
<td>16. The freedom to use my own judgment.</td>
<td>0.60</td>
<td>0.33</td>
<td>0.39</td>
</tr>
<tr>
<td>14. Being able to do things that don’t go against my conscience.</td>
<td>0.58</td>
<td>0.24</td>
<td>0.47</td>
</tr>
<tr>
<td>19. The praise I get for doing a good job.</td>
<td>0.08</td>
<td>0.89</td>
<td>0.78</td>
</tr>
<tr>
<td>18. The chances for advancement on this job.</td>
<td>0.20</td>
<td>0.86</td>
<td>0.80</td>
</tr>
<tr>
<td>% of Variance accounted for</td>
<td>38.78%</td>
<td>19.95%</td>
<td></td>
</tr>
</tbody>
</table>

We named the two factors intrinsic satisfaction (concerning the nature of the job tasks themselves and how people feel about the work they do, e.g., “the chance to do something that makes use of my abilities”), and extrinsic satisfaction (referring to aspects of work that have little to do with the job tasks or the work itself, e.g., “The relationship between pay and the amount of work I do”) according to the content of the items and to what has been most commonly mentioned in the literature as the results of the factor analysis of the short version of the MSQ, here used (Spector, 1997).
Confirmatory procedures yielded the goodness of fit indices values obtained for this model structure indicating satisfactory values for all the estimated indices (table 7.4).

Table 7.4 - Goodness of fit indices obtained in the confirmatory factor analysis of the SHRIMQ

<table>
<thead>
<tr>
<th>MSQ structure derived from the exploratory analysis</th>
<th>$\chi^2$</th>
<th>df</th>
<th>$\chi^2$/df</th>
<th>GFI</th>
<th>CFI</th>
<th>RMSEA</th>
<th>Confidence interval (90%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(22 items)</td>
<td>214.80**</td>
<td>26</td>
<td>8.26</td>
<td>.95</td>
<td>.93</td>
<td>.09</td>
<td>.08-.10</td>
</tr>
</tbody>
</table>

** $p < .01$

Figure 7.2 - Confirmatory Factor Analysis of the MSQ model obtained with the exploratory factor analysis procedures in this study.

7.1.3 Organizational Commitment Scales

The 19 items comprising the scale were subjected to an exploratory factor analysis, with principal components analysis. Three factors, accounting for 57.82% of the total variance were extracted and rotated to a varimax criterion. The items and their factor load-
The reversed score items present in the original scale, eliminated from this factorial solution are: “2. I do not feel a strong sense of belonging in my organization.”, “9. I do not feel emotionally attached to this organization.”; “12. I do not feel any obligation to remain with my current employer” “16. I do not feel “part of the family” at my organization.”
Table 7.5 - Varimax rotated component matrix based on correlations among the items of the OCS and communalities (h²).

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>h²</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. This organization has a great deal of personal meaning to me.</td>
<td>0.83</td>
<td>0.02</td>
<td>0.06</td>
<td>0.61</td>
</tr>
<tr>
<td>11. This organization deserves my loyalty.</td>
<td>0.76</td>
<td>0.07</td>
<td>0.20</td>
<td>0.72</td>
</tr>
<tr>
<td>3. I would be very happy to spend the rest of my career in this organization.</td>
<td>0.73</td>
<td>0.01</td>
<td>0.24</td>
<td>0.61</td>
</tr>
<tr>
<td>10. I owe a great deal to this organization.</td>
<td>0.61</td>
<td>0.17</td>
<td>0.23</td>
<td>0.68</td>
</tr>
<tr>
<td>14. I believe that I have too few options to consider leaving this organization.</td>
<td>0.07</td>
<td>0.82</td>
<td>-0.10</td>
<td>0.59</td>
</tr>
<tr>
<td>7. One of the few negative consequences of leaving this organization would be the scarcity of available alternatives.</td>
<td>-0.20</td>
<td>0.72</td>
<td>0.00</td>
<td>0.45</td>
</tr>
<tr>
<td>13. It would be very difficult to leave this organization now, even if I wanted to.</td>
<td>0.35</td>
<td>0.60</td>
<td>0.14</td>
<td>0.62</td>
</tr>
<tr>
<td>8. One of the major reasons I continue to work for this organization is that leaving would require a considerable personal sacrifice; another organization may not match the overall benefits I have here.</td>
<td>0.06</td>
<td>0.59</td>
<td>0.34</td>
<td>0.56</td>
</tr>
<tr>
<td>19. Too much of my life would be disrupted if I decided I wanted to leave my organization now.</td>
<td>0.24</td>
<td>0.57</td>
<td>0.27</td>
<td>0.46</td>
</tr>
<tr>
<td>5. I would not leave my organization right now because I have a sense of obligation to the people in it.</td>
<td>0.27</td>
<td>0.08</td>
<td>0.80</td>
<td>0.50</td>
</tr>
<tr>
<td>17. I would feel guilty if I left my organization now.</td>
<td>0.10</td>
<td>0.12</td>
<td>0.76</td>
<td>0.69</td>
</tr>
<tr>
<td>4. Even if it were to my advantage, I do not feel it would be right to leave my organization now.</td>
<td>0.41</td>
<td>0.11</td>
<td>0.65</td>
<td>0.46</td>
</tr>
</tbody>
</table>

% of Variance accounted for | 33.09% | 15.97% | 8.81%

Confirmatory procedures yielded the goodness of fit indices values obtained for this model structure indicating satisfactory values for all the estimated indices (table 7.6).
Table 7.6 - Goodness of fit indices obtained in the confirmatory factor analysis of the OCS

<table>
<thead>
<tr>
<th></th>
<th>$\chi^2$</th>
<th>df.</th>
<th>$\chi^2$/df</th>
<th>GFI</th>
<th>CFI</th>
<th>RMSEA</th>
<th>Confidence interval (90%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>OCS structure derived from the exploratory analysis</td>
<td>350.84**</td>
<td>48</td>
<td>7.31</td>
<td>.95</td>
<td>.91</td>
<td>.08</td>
<td>.07-.09</td>
</tr>
<tr>
<td>(22 items)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

** $p < .01$

![Diagram](image.png)

Figure 7.3 - Confirmatory Factor Analysis of the OCS model obtained with the exploratory factor analysis procedures.

7.1.4 Helping and Voice Behaviours Scale

Self-report responses of employees to the 13 item-scale were factor-analysed using principal components analysis. We specified oblique rotation for the analysis of this scale since we verified that the dimensions (Helping Behaviours and Voice Behaviours)
were positively correlated rather than orthogonally related ($r=.78$, $p<.01$), confirming what was mentioned by the authors of the scale in the seminal articles (LePine & Van Dyne, 1998; Van Dyne & Le Pine, 1998).

Three items, for loading in both factors simultaneously; table 7.7 lists the 10 remaining items, their factor loadings, communalities and explained variances. Factor 1 contains six Helping Behaviour items, representing the proactive behaviour that emphasizes small acts of consideration to other co-workers; Factor 2 contains four items, representing Voice Behaviours, the proactive behaviours that express a challenge the status quo in order to improve Organizational Performance.

Table 7.7 - Varimax rotated component matrix based on correlations among the items of the HVB and communalities ($h^2$).

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>$h^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>13. I get involved in matters which affect the quality of life in this group.</td>
<td>1.00</td>
<td>-0.15</td>
<td>0.77</td>
</tr>
<tr>
<td>12. I keep myself well informed about issues where my opinion might be useful to this work group.</td>
<td>0.92</td>
<td>-0.07</td>
<td>0.70</td>
</tr>
<tr>
<td>11. I develop and make recommendations about matters concerning issues that affect this work group.</td>
<td>0.75</td>
<td>0.17</td>
<td>0.74</td>
</tr>
<tr>
<td>10. I volunteer to do things for my work group.</td>
<td>0.74</td>
<td>0.16</td>
<td>0.65</td>
</tr>
<tr>
<td>9. I get involved to benefit this work group.</td>
<td>0.69</td>
<td>0.25</td>
<td>0.64</td>
</tr>
<tr>
<td>7. I speak up and encourage others in this group to get involved in issues that affect this group.</td>
<td>0.56</td>
<td>0.29</td>
<td>0.62</td>
</tr>
<tr>
<td>3. I help others in this group to learn about the work.</td>
<td>-0.09</td>
<td>0.94</td>
<td>0.55</td>
</tr>
<tr>
<td>4. I attend functions that help the work group.</td>
<td>0.02</td>
<td>0.87</td>
<td>0.59</td>
</tr>
<tr>
<td>5. I assist others in this group with their work for the benefit the work group.</td>
<td>0.15</td>
<td>0.77</td>
<td>0.65</td>
</tr>
<tr>
<td>2. I speak up in this group with ideas for new projects or changes in procedures.</td>
<td>0.12</td>
<td>0.69</td>
<td>0.70</td>
</tr>
</tbody>
</table>

% of Variance accounted for: 65.98% 8.39%

In summary, the results of the exploratory factor analysis generally support the two substantive components originally predicted by the authors of the scale (Helping and Voice
Behaviours), although the distribution of the items across the two factors did not follow the exact original pattern proposed by the authors.

Confirmatory procedures yielded the goodness of fit indices values obtained for this model structure indicating satisfactory values for all the estimated indices (table 7.8).

<table>
<thead>
<tr>
<th>HVB structure derived from the exploratory analysis (22 items)</th>
<th>( \chi^2 )</th>
<th>df</th>
<th>( \chi^2/df )</th>
<th>GFI</th>
<th>CFI</th>
<th>RMSEA</th>
<th>Confidence interval (90%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>243.62**</td>
<td>31</td>
<td>7.86</td>
<td>.95</td>
<td>.97</td>
<td>.09</td>
<td>.08-.10</td>
<td></td>
</tr>
</tbody>
</table>

** \( p < .01 \)

![Diagram of the HVB model](image)

**Figure 7.4 - Confirmatory Factor Analysis of the HVB model obtained with the exploratory factor analysis procedures.**
7.1.5 PROSES – Performance Related Observations of Self Efficacy Scale

The 5 items comprising the scale were subjected to an exploratory factor analysis, with principal components analysis. Three factors, accounting for 83.38% of the total variance were extracted and rotated to a varimax criterion. The items and their factor loadings are reported in table 7.9. Two items were removed from the analysis, one because of loading in more than one dimension and another because it loaded in a single item factor and was therefore unacceptable in a latent variable model (Maroco, 2010).

Table 7.9 - Varimax rotated component matrix based on correlations among the items of the PROSES, communalities ($h^2$) and explained variance.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>$h^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. I think I’m having a good performance in the Organization</td>
<td>0.94</td>
<td>0.75</td>
</tr>
<tr>
<td>3. I think I’m a good worker</td>
<td>0.93</td>
<td>0.89</td>
</tr>
<tr>
<td>1. In my opinion, I contribute to the success of the Organization</td>
<td>0.87</td>
<td>0.86</td>
</tr>
</tbody>
</table>

% of Variance accounted for

83.38%

Confirmatory procedures yielded the goodness of fit indices values obtained for this model structure indicating satisfactory values for all the estimated indices (table 7.10).

Table 7.10 - Goodness of fit indices obtained in the confirmatory factor analysis of the HVBS

<table>
<thead>
<tr>
<th>PROSES structure derived from the exploratory analysis</th>
<th>$\chi^2$</th>
<th>df.</th>
<th>$\chi^2$/df</th>
<th>GFI</th>
<th>CFI</th>
<th>RMSEA</th>
<th>Confidence interval (90%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(22 items)</td>
<td>22.17**</td>
<td>2</td>
<td>11.08</td>
<td>.98</td>
<td>.99</td>
<td>.10</td>
<td>.07-.14</td>
</tr>
</tbody>
</table>

** $p < .01$
7.1.6. Reliability

All the scales and its dimensions presented high levels of reliability, with $\alpha$ values of $\alpha=0.92$ for the SHRIMQ (subscales: information (5 items) $\alpha=0.90$, performance appraisal (4 items) $\alpha=0.93$, service cooperation (3 items) $\alpha=0.84$, recruitment and selection (3 items) $\alpha=0.68$, teamwork (2 items) $\alpha=0.86$, pay (3 items) $\alpha=0.89$, training (2 items) $\alpha=0.84$, $\alpha=0.82$ for the MSQ (subscales: intrinsic job satisfaction (7 items) $\alpha=0.84$, extrinsic job satisfaction (2 items) $\alpha=0.77$), $\alpha=0.80$ for the affective, normative and continuance organizational commitment scales (subscales: affective organizational commitment (4 items) $\alpha=0.76$, normative organizational commitment (3 items) $\alpha=0.73$, continuance organizational commitment (5 items) $\alpha=0.72$), $\alpha=0.94$ for the helping and voice Behaviours scale (subscales: voice behaviours scales (6 items) $\alpha=0.93$, helping behaviours scale (4 items)) and $\alpha=0.90$ for the performance related observations of self-efficacy.

As expected, from the obtained alpha scores and considering Ra and Kim’s (2013) conclusions that the difference between alpha values and CR is relatively inconsequential for practical applications, composite reliability and average variance extracted values of scales and subscales were good to very good. Results are shown in table 7.11.
Table 7.11 – Average Variance Extracted and Composite Reliability for the constructs of this study

<table>
<thead>
<tr>
<th>Scale</th>
<th>CR</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>SHRIMQ</td>
<td>0.91</td>
<td>0.85</td>
</tr>
<tr>
<td>SHRIMQ – Information</td>
<td>0.90</td>
<td>0.64</td>
</tr>
<tr>
<td>SHRIMQ - Performance Appraisal</td>
<td>0.93</td>
<td>0.91</td>
</tr>
<tr>
<td>SHRIMQ - Service Cooperation</td>
<td>0.84</td>
<td>0.78</td>
</tr>
<tr>
<td>SHRIMQ - Recruitment And Selection</td>
<td>0.70</td>
<td>0.54</td>
</tr>
<tr>
<td>SHRIMQ – Teamwork</td>
<td>0.86</td>
<td>0.82</td>
</tr>
<tr>
<td>SHRIMQ – Pay</td>
<td>0.89</td>
<td>0.85</td>
</tr>
<tr>
<td>SHRIMQ – Training</td>
<td>0.84</td>
<td>0.79</td>
</tr>
<tr>
<td>MSQ</td>
<td>0.68</td>
<td>0.57</td>
</tr>
<tr>
<td>MSQ - Extrinsic Job Satisfaction</td>
<td>0.79</td>
<td>0.71</td>
</tr>
<tr>
<td>MSQ - Intrinsic Job Satisfaction</td>
<td>0.84</td>
<td>0.70</td>
</tr>
<tr>
<td>OCS</td>
<td>0.69</td>
<td>0.57</td>
</tr>
<tr>
<td>OCS - Affective Organizational Commitment</td>
<td>0.77</td>
<td>0.61</td>
</tr>
<tr>
<td>OCS - Normative Organizational Commitment</td>
<td>0.74</td>
<td>0.60</td>
</tr>
<tr>
<td>OCS - Continuance Organizational Commitment</td>
<td>0.84</td>
<td>0.70</td>
</tr>
<tr>
<td>HVBS</td>
<td>0.99</td>
<td>0.99</td>
</tr>
<tr>
<td>HVBS - Helping</td>
<td>0.89</td>
<td>0.84</td>
</tr>
<tr>
<td>HVBS - Voice</td>
<td>0.93</td>
<td>0.90</td>
</tr>
<tr>
<td>PROSE</td>
<td>0.90</td>
<td>0.88</td>
</tr>
</tbody>
</table>

All CR values are above the cut point value of 0.7, safe for the OCS and the MSQ which were 1 and 2 centesimal points respectively below the reference value and can be considered in the acceptable range; all AVE values are above the cut-point of 0.5 (Maroco, 2010; Hair, 2009).

7.1.7. Common Method Variance
Because all data are self-reported and collected through the same questionnaire during the same period of time with cross-sectional research design, common method variance (variance that is attributed to the measurement method rather than the constructs of interest) may cause systematic measurement error and further bias the estimates of the true relationship among theoretical constructs. Method variance can either inflate or deflate observed relationships between constructs, thus leading to both Type I and Type II errors (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003; Podsakoff & Organ, 1986).

Harman’s single-factor test and confirmatory factor analysis, post hoc statistical tests, were conducted to test the presence of common method effect in all scales except PROSES, since this is in itself a single-factor measure, due to the parcimony of the items that compose it (3 items).
All the variables of each questionnaire were entered into an exploratory factor analysis, using unrotated principal components factor analysis; if a substantial amount of common method variance is present, either (a) a single factor would emerge from the factor analysis, or (b) one general factor would account for the majority of the covariance among the variables (e.g., Podsakoff et al., 2003; Podsakoff & Organ, 1986; Steensma, Tihanyi, Lyles, & Dhanaraj, 2005). Moreover, all variables of the different measurement models were loaded on one factor to examine the fit of the confirmatory factor analysis model. If common method variance is largely responsible for the relationship among the variables, the one-factor CFA model should fit the data well (Mossholder, Bennett, Kemery, & Wesolowski, 1998).

7. 1.7.1 Common Method Variance analysis of the SHRIMQ
The unrotated principal component factor analysis revealed the presence of seven distinct factors with eigenvalue greater than 1.0, accounting for 77.43% of the variance rather than a single factor; when a single factor is considered the total variance explained accounts for 37.2%. Thus, no general factor is apparent.

The confirmatory factor analysis showed that the single-factor model did not fit the data well, $\chi^2_{(230)} = 6811.84$, $p > .001$, GFI = 0.57; CFI = 0.49; RMSEA = 0.18.

While the results of these analyses do not preclude the possibility of common method variance, they do suggest that common method variance is not of great concern and thus is unlikely to confound the interpretations of results.

7. 1.7.2 Common Method Variance analysis of the Minnesota Satisfaction Questionnaire – MSQ (short version)
The unrotated principal component factor analysis revealed the presence of two distinct factors with eigenvalue greater than 1.0, accounting for 58.73% of the variance rather than a single factor; when a single factor is considered the total variance explained accounts for 43.25%. Thus, no general factor is apparent.

The confirmatory factor analysis showed that the single-factor model did not fit the data well, $\chi^2_{(35)} = 729.60$, $p > .001$, GFI = 0.85; CFI = 0.76; RMSEA = 0.15.

While the results of these analyses do not preclude the possibility of common method variance, they do suggest that common method variance is not of great concern and thus is unlikely to confound the interpretations of results.
7.1.7.3 Common Method Variance analysis of the Organizational Commitment Scales
The unrotated principal component factor analysis revealed the presence of three dis-
tinct factors with eigenvalue greater than 1.0, accounting for 57.87% of the variance
rather than a single factor; when a single factor is considered the total variance ex-
plained accounts for 33.09%. Thus, no general factor is apparent.

The confirmatory factor analysis showed that the single-factor model did not fit the data
well, $\chi^2 (65)=1458.07$, $p>.001$, GFI=0.76; CFI= 0.57; RMSEA = 0.15.

While the results of these analyses do not preclude the possibility of common method
variance, they do suggest that common method variance is not of great concern and thus
is unlikely to confound the interpretations of results.

7.1.7.4 Common Method Variance analysis of the Helping and Voice Behaviours Scale
The unrotated principal component factor analysis revealed the presence of three dis-
tinct factors with eigenvalue greater than 1.0, accounting for 74.37% of the variance
rather than a single factor; when a single factor is considered the total variance ex-
plained accounts for 65.98%. Thus, since the value of the first factor is above 50% a
general factor can be considered, which makes the confirmatory factor analysis para-
mount to determine the existence of common method variance.

The confirmatory factor analysis showed that the single-factor model did not fit the data
well, with $\chi^2 (44)= 938.35$, $p>.001$, GFI=0.82; CFI= 0.88; RMSEA = 0.15.

While the results of these analyses do not preclude the possibility of common method
variance, they do suggest that common method variance is not of great concern and thus
is unlikely to confound the interpretations of results.

7.1.8. Synthesis
The purpose of this section was to validate the scales that assess the five latent con-
structs of the model. We developed an exploratory and confirmatory factor analysis and
then assess the reliability of the instruments. In total, five scales were assessed, con-
cerning the five constructs:
• Satisfaction with Human Resources’ Issues Management Questionnaire (SHRIMQ) – the scale presented very good results, and two items were eliminated from the original set;

• Minnesota Satisfaction Questionnaire – short version (MSQ)– eleven items were eliminated, but the remaining set shows good psychometric properties and the resulting model is consistent with the literature;

• Organizational Commitment Scales (OCS)– the scale presented very good results that are consistent with previous research; seven items were eliminated due to low communalities;

• Helping and Voice Behaviours Scale (HVBS) – three items were eliminated from this scale for loading in both factors simultaneously; the final set of items presents very good psychometric properties.

• Performance Related Observations of Performance Scale (PROSES) – this construct presents very good results; 2 items were eliminated.

The exploratory factor analysis was conducted using principal components analysis with eigenvalues above 1; this was ensued by a confirmatory factor analysis. The results of the analysis are consistent with the theoretical literature of the constructs.

7.2 Sample
Sample is composed of a total of 942 subjects, with ages of respondents varying between 20 and 66 years old (mode=28 and M= 38.5; standard deviation= 9.6). Age distribution in our sample is shown in figure 7.6.
Figure 7.6 – Respondents’ age distribution

Most respondents are female (80.3%; 16.9% male respondents; 2.2% missing).

In terms of job, the distribution of staff per job group is shown in Figure 7.7.

![Distribution of staff](image)

Figure 7.7. Distribution of staff in different job functions (percentages).

Seniority values range between less than a year to up to 39 years (mode=3, mean=12.38
years, standard deviation= 8.46), where a significant amount of workers (71%) have an effective contract (hired with no predetermined ending date of the bond with the organization).

![Pie chart showing distribution of staff according to contract types.](image)

**Figure 7.8 - Distribution of staff according to contract types (percentages).**

When it comes to schooling, 17% of subjects have a school level inferior to the mandatory Portuguese level (9th year), 28.8% attended or graduated from middle school, 42.8% attended or graduated from College and 19.7% have post-graduate schooling (Specializations, Masters Degree, etc.).
7.3 Exploratory Analysis of Data

As one can observe in table 7.1, almost all scales have results that range from minimum to maximum values and those that do not include the minimum response value have a minimum value that does not reach the second Likert-point; almost all scales report values above the mean point of the scale, save for latent variables referring to pay or extrinsic satisfaction.

Regarding the SHRMQ and its subscales, workers seem to be satisfied with the HR policies in general, except in terms of pay, in which the average is below the mean point of the scale (3). Extrinsic satisfaction, in consonance with satisfaction with pay stands below the scale’s mean point, but the same cannot be said for intrinsic satisfaction.

The higher levels of organizational commitment refer to affective commitment (commitment based on emotional ties the employee develops with the organization primarily via positive work experiences), followed by the continuance commitment (commitment based on the perceived costs, both economic and social, of leaving the organization) and finally the normative commitment (perceived obligation towards the organization, rooted in the norms of reciprocity).
Both helping and voice behaviours and performance related observations of self-efficacy have high mean values, but this might be due to the social desirability bias, the tendency of survey respondents to answer questions in a manner that will be viewed favourably by others (Fisher, 1993).

*Table 7.12. Minimum, maximum, mean and standard deviation of the latent variables in the present study.*

<table>
<thead>
<tr>
<th></th>
<th>Min</th>
<th>Max</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>SHRIMQ – Information</td>
<td>1.00</td>
<td>5.00</td>
<td>3.42</td>
<td>0.69</td>
</tr>
<tr>
<td>SHRIMQ – Performance Appraisal</td>
<td>1.00</td>
<td>5.00</td>
<td>3.30</td>
<td>0.79</td>
</tr>
<tr>
<td>SHRIMQ – Service Cooperation</td>
<td>1.00</td>
<td>5.00</td>
<td>3.33</td>
<td>0.65</td>
</tr>
<tr>
<td>SHRIMQ – Recruitment and Selection</td>
<td>1.00</td>
<td>5.00</td>
<td>3.56</td>
<td>0.61</td>
</tr>
<tr>
<td>SHRIMQ – Teamwork</td>
<td>1.00</td>
<td>5.00</td>
<td>3.77</td>
<td>0.75</td>
</tr>
<tr>
<td>SHRIMQ – Pay</td>
<td>1.00</td>
<td>5.00</td>
<td>2.25</td>
<td>0.85</td>
</tr>
<tr>
<td>SHRIMQ – Training</td>
<td>1.00</td>
<td>5.00</td>
<td>3.55</td>
<td>0.84</td>
</tr>
<tr>
<td>Global SHRIMQ</td>
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<td>4.88</td>
<td>3.29</td>
<td>0.51</td>
</tr>
<tr>
<td>Intrinsic Job Satisfaction</td>
<td>1.29</td>
<td>5.00</td>
<td>3.90</td>
<td>0.59</td>
</tr>
<tr>
<td>Extrinsic Job Satisfaction</td>
<td>1.00</td>
<td>5.00</td>
<td>2.29</td>
<td>0.96</td>
</tr>
<tr>
<td>Global Job Satisfaction</td>
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<td>3.54</td>
<td>0.57</td>
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<td>7.00</td>
<td>5.30</td>
<td>1.05</td>
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<tr>
<td>Normative Organizational Commitment</td>
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<td>7.00</td>
<td>3.98</td>
<td>1.40</td>
</tr>
<tr>
<td>Continuance Organizational Commitment</td>
<td>1.00</td>
<td>7.00</td>
<td>4.60</td>
<td>1.14</td>
</tr>
<tr>
<td>Global Organizational Commitment</td>
<td>1.00</td>
<td>7.00</td>
<td>4.68</td>
<td>0.90</td>
</tr>
<tr>
<td>Voice Behaviours</td>
<td>1.67</td>
<td>7.00</td>
<td>5.65</td>
<td>0.90</td>
</tr>
<tr>
<td>Helping Behaviours</td>
<td>1.00</td>
<td>7.00</td>
<td>5.59</td>
<td>0.98</td>
</tr>
<tr>
<td>Global Helping and Voice Behaviours</td>
<td>1.50</td>
<td>7.00</td>
<td>5.63</td>
<td>0.68</td>
</tr>
<tr>
<td>PROSES</td>
<td>1.00</td>
<td>5.00</td>
<td>4.52</td>
<td>0.56</td>
</tr>
</tbody>
</table>

Our sample presents some gender differences concerning our constructs. As one can observe in tables 7.12 and 7.13, women present values that are significantly higher than men concerning satisfaction with performance appraisal, service cooperation, recruit-
ment and selection, training and global satisfaction with human Resources’ Issues management. Also, women reported higher levels of intrinsic job satisfactions and global job satisfaction, as well as normative, continuance and global organizational commitment. Finally, women in our sample reported significantly higher levels of global helping and voice behaviours.
Table 7.13 – t tests concerning gender differences for all the latent constructs in our study.

<table>
<thead>
<tr>
<th>Constructs</th>
<th>male</th>
<th>SD</th>
<th>female</th>
<th>SD</th>
<th>df</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>SHRIMQ – Information</td>
<td>3.33</td>
<td>0.74</td>
<td>3.44</td>
<td>0.68</td>
<td>913</td>
<td>-1.77</td>
</tr>
<tr>
<td>SHRIMQ – Performance Appraisal</td>
<td>3.18</td>
<td>0.84</td>
<td>3.33</td>
<td>0.77</td>
<td>913</td>
<td>-2.15*</td>
</tr>
<tr>
<td>SHRIMQ – Service Cooperation</td>
<td>3.20</td>
<td>0.66</td>
<td>3.35</td>
<td>0.64</td>
<td>913</td>
<td>-2.75**</td>
</tr>
<tr>
<td>SHRIMQ – Recruitment and Selection</td>
<td>3.44</td>
<td>0.67</td>
<td>3.58</td>
<td>0.59</td>
<td>211,52</td>
<td>-2.52*</td>
</tr>
<tr>
<td>SHRIMQ – Teamwork</td>
<td>3.78</td>
<td>0.77</td>
<td>3.78</td>
<td>0.74</td>
<td>913</td>
<td>-0.06</td>
</tr>
<tr>
<td>SHRIMQ – Pay</td>
<td>2.22</td>
<td>0.87</td>
<td>2.26</td>
<td>0.85</td>
<td>913</td>
<td>-0.50</td>
</tr>
<tr>
<td>SHRIMQ – Training</td>
<td>3.35</td>
<td>0.88</td>
<td>3.59</td>
<td>0.83</td>
<td>913</td>
<td>-3.24**</td>
</tr>
<tr>
<td>Global SHRIMQ</td>
<td>3.19</td>
<td>0.54</td>
<td>3.31</td>
<td>0.49</td>
<td>913</td>
<td>-2.71**</td>
</tr>
<tr>
<td>Intrinsic Job Satisfaction</td>
<td>3.72</td>
<td>0.70</td>
<td>3.94</td>
<td>0.56</td>
<td>202,84</td>
<td>-3.68***</td>
</tr>
<tr>
<td>Extrinsic Job Satisfaction</td>
<td>2.18</td>
<td>0.97</td>
<td>2.30</td>
<td>0.95</td>
<td>225,20</td>
<td>-1.34</td>
</tr>
<tr>
<td>Global Job Satisfaction</td>
<td>3.38</td>
<td>0.66</td>
<td>3.57</td>
<td>0.54</td>
<td>913</td>
<td>-3.93***</td>
</tr>
<tr>
<td>Affective Organizational Commitment</td>
<td>5.18</td>
<td>1.06</td>
<td>5.31</td>
<td>1.04</td>
<td>913</td>
<td>-1.44</td>
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<tr>
<td>Normative Organizational Commitment</td>
<td>3.72</td>
<td>1.44</td>
<td>4.02</td>
<td>1.39</td>
<td>913</td>
<td>-2.42*</td>
</tr>
<tr>
<td>Continuance Organizational Commitment</td>
<td>4.34</td>
<td>1.23</td>
<td>4.65</td>
<td>1.11</td>
<td>913</td>
<td>-3.17**</td>
</tr>
<tr>
<td>Global Organizational Commitment</td>
<td>4.47</td>
<td>0.85</td>
<td>4.71</td>
<td>0.90</td>
<td>913</td>
<td>-3.20***</td>
</tr>
<tr>
<td>Voice Behaviour</td>
<td>5.56</td>
<td>0.97</td>
<td>5.67</td>
<td>0.87</td>
<td>913</td>
<td>-1.44</td>
</tr>
<tr>
<td>Helping Behaviour</td>
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<td>1.07</td>
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<td>0.95</td>
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<td>-1.09</td>
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<tr>
<td>Global Helping and Voice Behaviours</td>
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<td>5.65</td>
<td>0.85</td>
<td>913</td>
<td>-1.26</td>
</tr>
<tr>
<td>PROSES</td>
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<td>0.59</td>
<td>4.53</td>
<td>0.53</td>
<td>913</td>
<td>-1.28</td>
</tr>
</tbody>
</table>

* p<0.05; ** p<0.01; *** p≤0.001

Age seems to correlate with the dimensions of our study as well. As one can observe in table 7.14, age correlates positively with satisfaction with pay and training, but also with extrinsic and global job satisfaction. Age correlates positively with affective, normative and global organizational commitment. Respondents seem to increase their helping and voice behaviours separately and taken together with age as well.
Table 7.14 – Pearson correlations of the age of respondents with the latent constructs of our study

<table>
<thead>
<tr>
<th>Construct</th>
<th>Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>SHRIMQ – Information</td>
<td>-0.001</td>
</tr>
<tr>
<td>SHRIMQ – Performance Appraisal</td>
<td>-0.03</td>
</tr>
<tr>
<td>SHRIMQ – Service Cooperation</td>
<td>0.01</td>
</tr>
<tr>
<td>SHRIMQ – Recruitment and Selection</td>
<td>0.06</td>
</tr>
<tr>
<td>SHRIMQ – Teamwork</td>
<td>0.06</td>
</tr>
<tr>
<td>SHRIMQ – Pay</td>
<td>0.10**</td>
</tr>
<tr>
<td>SHRIMQ – Training</td>
<td>-0.08*</td>
</tr>
<tr>
<td>Global SHRIMQ</td>
<td>0.02</td>
</tr>
<tr>
<td>Intrinsic Job Satisfaction</td>
<td>0.04</td>
</tr>
<tr>
<td>Extrinsic Job Satisfaction</td>
<td>0.18***</td>
</tr>
<tr>
<td>Global Job Satisfaction</td>
<td>0.09**</td>
</tr>
<tr>
<td>Affective Organizational Commitment</td>
<td>0.17***</td>
</tr>
<tr>
<td>Normative Organizational Commitment</td>
<td>0.20***</td>
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<tr>
<td>Continuance Organizational Commitment</td>
<td>-0.004</td>
</tr>
<tr>
<td>Global Organizational Commitment</td>
<td>0.14***</td>
</tr>
<tr>
<td>Voice Behaviours</td>
<td>0.08*</td>
</tr>
<tr>
<td>Helping Behaviours</td>
<td>0.08*</td>
</tr>
<tr>
<td>Global Helping and Voice Behaviours</td>
<td>0.08*</td>
</tr>
<tr>
<td>PROSES</td>
<td>0.01</td>
</tr>
</tbody>
</table>

*p<0.05 ; ** p<0.01; *** p≤0.001

Finally, we decided to look into the differences in the different latent constructs regarding all the different jobs included in our sample.
Table 7.15 – Means and Standard Deviations of the different latent constructs in the different jobs of the respondents.

<table>
<thead>
<tr>
<th></th>
<th>Nurses (N=363)</th>
<th>Helpers (N=247)</th>
<th>Allied Healthcare Technicians (N=85)</th>
<th>Medical Doctors (N=49=)</th>
<th>Technical Assistants (89)</th>
<th>Superior Technician (N=35)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>SHRIMQ – Information</td>
<td>3.43</td>
<td>0.70</td>
<td>3.52</td>
<td>0.62</td>
<td>3.20</td>
<td>0.67</td>
</tr>
<tr>
<td>SHRIMQ – Performance Appraisal</td>
<td>3.34</td>
<td>0.72</td>
<td>3.44</td>
<td>0.77</td>
<td>3.14</td>
<td>0.75</td>
</tr>
<tr>
<td>SHRIMQ – Service Cooperation</td>
<td>3.35</td>
<td>0.69</td>
<td>3.34</td>
<td>0.59</td>
<td>3.14</td>
<td>0.55</td>
</tr>
<tr>
<td>SHRIMQ – Recruitment and Selection</td>
<td>3.53</td>
<td>0.58</td>
<td>3.59</td>
<td>0.58</td>
<td>3.60</td>
<td>0.59</td>
</tr>
<tr>
<td>SHRIMQ – Teamwork</td>
<td>3.80</td>
<td>0.73</td>
<td>3.73</td>
<td>0.73</td>
<td>3.82</td>
<td>0.59</td>
</tr>
<tr>
<td>SHRIMQ – Pay</td>
<td>2.02</td>
<td>0.80</td>
<td>2.42</td>
<td>0.86</td>
<td>2.13</td>
<td>0.85</td>
</tr>
<tr>
<td>SHRIMQ – Training</td>
<td>3.66</td>
<td>0.82</td>
<td>3.78</td>
<td>0.68</td>
<td>3.02</td>
<td>0.86</td>
</tr>
<tr>
<td>Global SHRIMQ</td>
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<td>3.38</td>
<td>0.48</td>
<td>3.13</td>
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<td>Intrinsic Job Satisfaction</td>
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<td>3.97</td>
<td>0.57</td>
<td>3.83</td>
<td>0.49</td>
</tr>
<tr>
<td>Extrinsic Job Satisfaction</td>
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<td>0.86</td>
<td>2.48</td>
<td>0.97</td>
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<td>0.93</td>
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<td>Global Job Satisfaction</td>
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<td>0.52</td>
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<td>0.50</td>
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<td>1.01</td>
<td>5.57</td>
<td>0.97</td>
<td>5.03</td>
<td>1.10</td>
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<td>Normative Organizational Commitment</td>
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<td>1.30</td>
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<td>1.28</td>
<td>3.78</td>
<td>1.32</td>
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<tr>
<td>Continuance Organizational Commitment</td>
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<td>1.10</td>
<td>5.01</td>
<td>1.00</td>
<td>4.65</td>
<td>1.10</td>
</tr>
<tr>
<td>Global Organizational Commitment</td>
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<td>0.82</td>
<td>5.06</td>
<td>0.83</td>
<td>4.56</td>
<td>0.88</td>
</tr>
<tr>
<td>Voice Behaviours</td>
<td>5.69</td>
<td>0.81</td>
<td>5.59</td>
<td>0.95</td>
<td>5.59</td>
<td>0.81</td>
</tr>
<tr>
<td>Helping Behaviours</td>
<td>5.61</td>
<td>0.95</td>
<td>5.57</td>
<td>1.02</td>
<td>5.64</td>
<td>0.81</td>
</tr>
<tr>
<td>Global Helping and Voice Behaviours</td>
<td>5.66</td>
<td>0.82</td>
<td>5.58</td>
<td>0.74</td>
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<td>0.68</td>
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<td>4.51</td>
<td>0.55</td>
<td>4.53</td>
<td>0.47</td>
</tr>
</tbody>
</table>
Table 7.16 – One way ANOVA of the differences in the latent constructs of our study regarding the different jobs included in the sample.

<table>
<thead>
<tr>
<th>Constructs</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>SHRIMQ – Information</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>863</td>
<td>7.40</td>
<td>1.23</td>
<td>2.59**</td>
</tr>
<tr>
<td>Within Groups</td>
<td>6</td>
<td>412.03</td>
<td>0.48</td>
<td></td>
</tr>
<tr>
<td>SHRIMQ – Performance Appraisal</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>863</td>
<td>15.53</td>
<td>2.59</td>
<td>4.26***</td>
</tr>
<tr>
<td>Within Groups</td>
<td>6</td>
<td>524.51</td>
<td>0.61</td>
<td></td>
</tr>
<tr>
<td>SHRIMQ – Service Cooperation</td>
<td></td>
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<td></td>
</tr>
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<td>1.30</td>
<td>3.18***</td>
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<td>Within Groups</td>
<td>6</td>
<td>352.73</td>
<td>0.41</td>
<td></td>
</tr>
<tr>
<td>SHRIMQ – Recruitment and Selection</td>
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<td></td>
<td></td>
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<tr>
<td>Between Groups</td>
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<td>0.51</td>
<td>1.38</td>
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<td>SHRIMQ – Teamwork</td>
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<tr>
<td>Between Groups</td>
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<td>0.91</td>
<td>1.72</td>
</tr>
<tr>
<td>Within Groups</td>
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<td>456.64</td>
<td>0.53</td>
<td></td>
</tr>
<tr>
<td>SHRIMQ – Pay</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>863</td>
<td>49.14</td>
<td>8.19</td>
<td>12.17***</td>
</tr>
<tr>
<td>Within Groups</td>
<td>6</td>
<td>580.78</td>
<td>0.67</td>
<td></td>
</tr>
<tr>
<td>SHRIMQ – Training</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>863</td>
<td>57.25</td>
<td>9.54</td>
<td>15.46***</td>
</tr>
<tr>
<td>Within Groups</td>
<td>6</td>
<td>532.77</td>
<td>0.62</td>
<td></td>
</tr>
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<td>Global SHRIMQ</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>863</td>
<td>5.61</td>
<td>0.94</td>
<td>3.83***</td>
</tr>
<tr>
<td>Within Groups</td>
<td>6</td>
<td>210.96</td>
<td>0.24</td>
<td></td>
</tr>
<tr>
<td>Intrinsic Job Satisfaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>863</td>
<td>5.15</td>
<td>0.86</td>
<td>2.56**</td>
</tr>
<tr>
<td>Within Groups</td>
<td>6</td>
<td>289.46</td>
<td>0.34</td>
<td></td>
</tr>
<tr>
<td>Extrinsic Job Satisfaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>863</td>
<td>70.96</td>
<td>11.83</td>
<td>14.55***</td>
</tr>
<tr>
<td>Within Groups</td>
<td>6</td>
<td>701.41</td>
<td>0.81</td>
<td></td>
</tr>
<tr>
<td>Global Job Satisfaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>863</td>
<td>10.32</td>
<td>1.72</td>
<td>5.67***</td>
</tr>
<tr>
<td>Within Groups</td>
<td>6</td>
<td>261.73</td>
<td>0.30</td>
<td></td>
</tr>
<tr>
<td>Affective Organizational Commitment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>863</td>
<td>30.35</td>
<td>5.06</td>
<td>4.78***</td>
</tr>
<tr>
<td>Within Groups</td>
<td>6</td>
<td>912.36</td>
<td>1.06</td>
<td></td>
</tr>
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<td>Normative Organizational Commitment</td>
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<td></td>
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<tr>
<td>Between Groups</td>
<td>863</td>
<td>121.06</td>
<td>20.18</td>
<td>11.41***</td>
</tr>
<tr>
<td>Within Groups</td>
<td>6</td>
<td>1525.87</td>
<td>1.77</td>
<td></td>
</tr>
<tr>
<td>Continuance Organizational Commitment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Commitment
  Between Groups  863  82.30  13.72  11.45***
  Within Groups   6  1033.47  1.20
Global Organizational Commit-ment
  Between Groups  863  57.77  9.63  13.42***
  Within Groups   6  619.20  0.72
Voice Behaviours
  Between Groups  863  6.14  1.02  1.30
  Within Groups   6  680.88  0.79
Helping Behaviours
  Between Groups  863  10.26  1.71  1.78
  Within Groups   6  829.44  0.96
Global Helping and Voice Behav-ious
  Between Groups  863  6.89  1.15  1.50
  Within Groups   6  660.42  0.77
PROSES
  Between Groups  863  1.57  0.26  0.92
  Within Groups   6  244.68  0.28

* p<0.05; ** p<0.01; *** p<0.001

Post-hoc tests showed that 14 out of the 19 latent constructs yielded significant F’s. In table 7.1, we are able to observe the comparison of averages indicated as significant by the Bonferroni post hoc comparison test. Groups being compared are organized with highest value to the left of lowest value.
Table 7.1. Bonferroni post hoc comparisons results.

<table>
<thead>
<tr>
<th>Latent construct</th>
<th>Job</th>
<th>M</th>
<th>Job</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>SHRIMQ – Information</td>
<td>Helpers</td>
<td>3.52</td>
<td>Allied Healthcare Professionals</td>
<td>3.20</td>
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<tr>
<td>SHRMQ – Performance Appraisal</td>
<td>Helpers</td>
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<td>Allied Healthcare Professionals</td>
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</tr>
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<td></td>
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<td>3.07</td>
</tr>
<tr>
<td>SHRMQ – Service Coop.</td>
<td>Medical Doctors</td>
<td>3.57</td>
<td>Helpers</td>
<td>3.35</td>
</tr>
<tr>
<td>SHRMQ – Recruitment and Selection</td>
<td>Non significant F</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SHRMQ – Teamwork</td>
<td>Non significant F</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SHRMQ – Pay</td>
<td>Helpers</td>
<td>2.42</td>
<td>Nurses</td>
<td>2.02</td>
</tr>
<tr>
<td></td>
<td>Medical Doctors</td>
<td>2.74</td>
<td>Nurses</td>
<td>2.02</td>
</tr>
<tr>
<td></td>
<td>Technical Assistants</td>
<td>2.51</td>
<td>Nurses</td>
<td>2.02</td>
</tr>
<tr>
<td></td>
<td>Medical Doctors</td>
<td>2.74</td>
<td>Allied Healthcare Professionals</td>
<td>2.13</td>
</tr>
<tr>
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<td>Allied Healthcare Professionals</td>
<td>2.13</td>
</tr>
<tr>
<td></td>
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<td>3.66</td>
<td>Technical Assistants</td>
<td>3.21</td>
</tr>
<tr>
<td></td>
<td>Nurses</td>
<td>3.66</td>
<td>Superior Technicians</td>
<td>3.21</td>
</tr>
<tr>
<td></td>
<td>Helpers</td>
<td>3.78</td>
<td>Nurses</td>
<td>3.66</td>
</tr>
<tr>
<td>SHRMQ – Training</td>
<td>Helpers</td>
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<td>Allied Healthcare Professionals</td>
<td>3.02</td>
</tr>
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<td>3.78</td>
<td>Technical Assistants</td>
<td>3.21</td>
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<tr>
<td></td>
<td>Helpers</td>
<td>3.78</td>
<td>Superior Technicians</td>
<td>3.21</td>
</tr>
<tr>
<td></td>
<td>Helpers</td>
<td>3.78</td>
<td>Medical Doctors</td>
<td>3.52</td>
</tr>
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<td>Global SHRIMQ</td>
<td>Helpers</td>
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<td>Allied Healthcare Professionals</td>
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<td></td>
<td>Medical Doctors</td>
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<td>Allied Healthcare Professionals</td>
<td>3.13</td>
</tr>
<tr>
<td>Intrinsic Job Satisfaction</td>
<td>Medical Doctors</td>
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<td>Technical Assistants</td>
<td>3.79</td>
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<td></td>
<td>Helpers</td>
<td>2.48</td>
<td>Nurses</td>
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<td>Technical Assistants</td>
<td>2.47</td>
<td>Nurses</td>
<td>2.03</td>
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<td>Allied Healthcare Professionals</td>
<td>2.12</td>
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<td>Extrinsic Job Satisfaction</td>
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<td>Nurses</td>
<td>2.03</td>
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<tr>
<td></td>
<td>Medical Doctors</td>
<td>3.09</td>
<td>Helpers</td>
<td>2.48</td>
</tr>
<tr>
<td></td>
<td>Medical Doctors</td>
<td>3.09</td>
<td>Allied Healthcare Professionals</td>
<td>2.12</td>
</tr>
<tr>
<td></td>
<td>Medical Doctors</td>
<td>3.09</td>
<td>Technical Assistants</td>
<td>2.47</td>
</tr>
</tbody>
</table>
### Global Job Satisfaction

<table>
<thead>
<tr>
<th>Role</th>
<th>Medical Doctors</th>
<th>Superior Technicians</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Doctors</td>
<td>3.87</td>
<td>3.48</td>
</tr>
<tr>
<td>Medical Doctors</td>
<td>3.87</td>
<td>3.45</td>
</tr>
<tr>
<td>Medical Doctors</td>
<td>3.87</td>
<td>3.50</td>
</tr>
</tbody>
</table>

### Affective Organizational Commitment

<table>
<thead>
<tr>
<th>Role</th>
<th>Helpers</th>
<th>Medical Doctors</th>
<th>Allied Healthcare Professionals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Helpers</td>
<td>5.57</td>
<td>3.87</td>
<td>3.87</td>
</tr>
<tr>
<td>Helpers</td>
<td>5.57</td>
<td>3.87</td>
<td>3.87</td>
</tr>
</tbody>
</table>

### Normative Organizational Commitment

<table>
<thead>
<tr>
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<th>Allied Healthcare Professionals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Helpers</td>
<td>4.48</td>
<td>3.78</td>
<td>3.78</td>
</tr>
</tbody>
</table>

### Continuance Organizational Commitment

<table>
<thead>
<tr>
<th>Role</th>
<th>Helpers</th>
<th>Medical Doctors</th>
<th>Allied Healthcare Professionals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Helpers</td>
<td>5.01</td>
<td>5.01</td>
<td>5.01</td>
</tr>
<tr>
<td>Helpers</td>
<td>5.01</td>
<td>5.01</td>
<td>5.01</td>
</tr>
</tbody>
</table>

### Global Organizational Commitment

<table>
<thead>
<tr>
<th>Role</th>
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<th>Allied Healthcare Professionals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Helpers</td>
<td>5.06</td>
<td>5.06</td>
<td>5.06</td>
</tr>
<tr>
<td>Helpers</td>
<td>5.06</td>
<td>5.06</td>
<td>5.06</td>
</tr>
</tbody>
</table>

### Voice Behaviours

- Non significant F

### Helping Behaviours

- Non significant F

### Global Helping and Voice Behaviours

- Non significant F

### PROSES

- Non significant F

---

### 7.4 Hypotheses Testing

We tested our hypotheses using structural equations modelling (SEM) since all our hypotheses included complex latent variables and SEM has been proven to report some advantages when compared to traditional methods that include calculating the total scores of global scales and their dimensions and disregard measurement errors for the larger part.

In this study we used moderation and mediation models using bootstrapping\(^{19}\), regres-
sion models and path analysis to test hypotheses.

**Statistical assumptions underlying SEM**
As with all statistical methodologies, structural equation modelling requires that certain underlying assumptions be satisfied to ensure accurate inferences. These assumptions pertain to the intersection of the data and the estimation method. The major assumptions associated with structural equation modelling are multivariate normality, completely random missing data, sufficiently large sample size, and correct model specification (Kaplan, 2009).

**Missing data**
Often in social sciences there is a problem with missing data/missing values (Hair et al., 2009; Tabachnik & Fidel, 2007). The topic of how to analyse data sets with missing observations is complicated (Kline, 2011). Ideally researchers would work with data sets that encompassed no missing data, but in the real worlds this is often impossible. Kline (2011) refers that if data loss pattern is ignorable (that is to say, data is missing at random and not following any specific systematic pattern), data may be replaced using single our multiple imputation methods.

In our study we began by analysing the missing values and realizing if there were cases and subjects that had more than 20% of data missing, which is one of the methods proposed by Tabachnik and Fidel (2007) to determine if data is missing at random or not. We found 23 subjects that failed to reply to more than 20% of the questionnaire and chose to eliminate them from our sample. The remaining cases and subjects had missing data with no visible pattern, which led us to replace data using the “series mean” option of SPSS.

Thus missing data was dealt with using SPSS’s “replace with mean” method and the data set was complete for the SEM analysis.

**Multivariate normal distribution of data**
When the estimation methods are maximum likelihood or generalized least squares, the observed variables must follow a multivariate normal distribution. When the normality in doubt (as in the case of regression models with heteroscedastic residuals fit to small samples), or where parametric inference is impossible or requires very complicated formulas for the calculation of standard errors (as in the case of computing confidence intervals for the median, quartiles, and other percentiles).
assumption is met, ML and GLS have properties of consistency (the parameters estimate tends to the real value when sample size increases) and asymptotic null bias (parameter estimates are unbiased to larger samples, i.e., they do not over or underestimate populational parameters) (Maroco, 2010).

Normality can be tested using normality tests such as the Shapiro-Wilk (for small sample sizes) or the Kolmogorov-Smirnov (for large sample sizes), but since these are especially sensitive to small variations in the sample they have a high probability of incurring in Type I error (concluding that the variable is not normal, when in fact it is). Alternatively, sample kurtoses and skewness are often used as indicators of a normal distribution (Maroco, 2010).

When kurtoses and skewness of the observed variables yield values equal or close to zero, one can conclude that the assumption of multivariate normality is plausible (Maroco, 2010).

Regardless, Kline (2011) points out the fact that for values of skewness under 3 and kurtoses under 10 the violation of the multivariate normal distribution of data assumption is not severe and that the methods above mentioned may still be used without concern.

As one may observe in the following table (table 7.18), this is the case for all latent variables in our study, which leads us to conclude that this assumption is met.
Table 7.18. Normality tests using skewness and kurtoses of the latent constructs of this study

<table>
<thead>
<tr>
<th>Construct</th>
<th>Skewness Statistic</th>
<th>Skewness Std. Error</th>
<th>Kurtosis Statistic</th>
<th>Kurtosis Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>SHRIMQ – Information</td>
<td>-0.54</td>
<td>0.08</td>
<td>0.59</td>
<td>0.16</td>
</tr>
<tr>
<td>SHRIMQ – Performance Appraisal</td>
<td>-0.54</td>
<td>0.08</td>
<td>0.65</td>
<td>0.16</td>
</tr>
<tr>
<td>SHRIMQ – Service Cooperation</td>
<td>-0.37</td>
<td>0.08</td>
<td>0.32</td>
<td>0.16</td>
</tr>
<tr>
<td>SHRIMQ – Recruitment and Selection</td>
<td>-0.40</td>
<td>0.08</td>
<td>0.81</td>
<td>0.16</td>
</tr>
<tr>
<td>SHRIMQ – Teamwork</td>
<td>-0.86</td>
<td>0.08</td>
<td>1.18</td>
<td>0.16</td>
</tr>
<tr>
<td>SHRIMQ – Pay</td>
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<td>0.08</td>
<td>-0.50</td>
<td>0.16</td>
</tr>
<tr>
<td>SHRIMQ – Training</td>
<td>-0.67</td>
<td>0.08</td>
<td>0.39</td>
<td>0.16</td>
</tr>
<tr>
<td>Global SHRIMQ</td>
<td>-0.36</td>
<td>0.08</td>
<td>0.37</td>
<td>0.16</td>
</tr>
<tr>
<td>Intrinsic Job Satisfaction</td>
<td>-0.74</td>
<td>0.08</td>
<td>1.23</td>
<td>0.16</td>
</tr>
<tr>
<td>Extrinsic Job Satisfaction</td>
<td>0.27</td>
<td>0.08</td>
<td>-0.79</td>
<td>0.16</td>
</tr>
<tr>
<td>Global Job Satisfaction</td>
<td>-0.52</td>
<td>0.08</td>
<td>-0.01</td>
<td>0.16</td>
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<tr>
<td>Affective Organizational Commitment</td>
<td>-0.06</td>
<td>0.08</td>
<td>-0.42</td>
<td>0.16</td>
</tr>
<tr>
<td>Normative Organizational Commitment</td>
<td>-0.39</td>
<td>0.08</td>
<td>0.11</td>
<td>0.16</td>
</tr>
<tr>
<td>Continuance Organizational Commitment</td>
<td>-0.59</td>
<td>0.08</td>
<td>0.35</td>
<td>0.16</td>
</tr>
<tr>
<td>Global Organizational Commitment</td>
<td>-0.90</td>
<td>0.08</td>
<td>1.73</td>
<td>0.16</td>
</tr>
<tr>
<td>Voice Behaviours</td>
<td>-1.59</td>
<td>0.08</td>
<td>5.96</td>
<td>0.16</td>
</tr>
<tr>
<td>Helping Behaviours</td>
<td>-0.47</td>
<td>0.08</td>
<td>0.65</td>
<td>0.16</td>
</tr>
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<td>Global Helping and Voice Behaviours</td>
<td>-0.65</td>
<td>0.08</td>
<td>-0.72</td>
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</tr>
<tr>
<td>PROSES</td>
<td>0.42</td>
<td>0.08</td>
<td>0.99</td>
<td>0.16</td>
</tr>
</tbody>
</table>

**Sufficiently large sample size**

“It is generally true that SEM is a large-sample technique” (Kline, 2011, p. 11). The minimum sample size for any given study is not easily calculated, since there are many estimation methods. Methods vary from the “N:q” rule (especially useful when using the maximum likelihood method), where “N” is the number of cases and “q” is the
number of parameters that require statistical estimates; Jackson (as cited in Kline, 2011) suggests that an ideal ratio would be 20:1. Recommended sample size may also concern more absolute terms. Ding, Velicer, and Harlow (as cited in Schumaker & Lomax, 2010) recommend a minimum of 100 to 150 subjects as the minimum satisfactory sample size when conducting structural equations models. Kline (2011) refers that 200 is a very common N in studies using SEM, however, Hu, Bentler, and Kano (1992) indicated that this calculation should consider the number of variables and indicate a value of 10 to 20 subjects per observed variable/questionnaire item, but the absolute acceptable minimum would be 5 subjects per item/observed variable (Bentler & Chu as cited in Schumaker & Lomax, 2010).

Our sample is composed of 942 subjects which largely surpasses the absolute methods’ prescriptions, and taken together there are a total of 83 items in our instruments, which means that the ratio of subjects/observed variables or items in this study is roughly 11,35 subjects per item, which also is within the range of the sample size indications.

Correct model specification
Model specification refers to the formal design of the theoretical model that tests the research questions and reflects a priori the assumptions of the theoretical framework being studied. In SEM, it is assumed that relationships are always designed from “cause to effect” and that the variance of exogenous variables that is unexplained by endogenous variables is due to disturbances (errors associated to latent variables). These indications were considered when designing our model.

Synthesis
We have dealt with all of the above-mentioned assumptions to SEM and concluded that the data were fit for this statistical technique. Further we had already established the quality of the measurement models when we conducted the validation of the instruments using confirmatory factor analysis. Thus we could proceed with the analysis to test our hypotheses.
**Synthesis of Hypothesis**

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1.</td>
<td>SHRIM predicts PROSE</td>
<td></td>
</tr>
<tr>
<td>H2.a1</td>
<td>SHRIM predicts Job Satisfaction</td>
<td></td>
</tr>
<tr>
<td>H2.a2</td>
<td>Job Satisfaction predicts PROSE</td>
<td></td>
</tr>
<tr>
<td>H2.a3</td>
<td>The different facets of Job Satisfaction mediate the relationship between SHRIM and PROSE.</td>
<td></td>
</tr>
<tr>
<td>H2.b1</td>
<td>SHRIM predicts Organizational Commitment</td>
<td></td>
</tr>
<tr>
<td>H2.b2</td>
<td>Organizational Commitment predicts PROSE</td>
<td></td>
</tr>
<tr>
<td>H2.b3</td>
<td>The relationship between SHRIM and PROSE is mediated by the different components of Organizational Commitment.</td>
<td></td>
</tr>
<tr>
<td>H2.c1</td>
<td>SHRIM predicts Organizational Citizenship Behaviours</td>
<td></td>
</tr>
<tr>
<td>H2.c2</td>
<td>Organizational Citizenship Behaviours predict PROSE</td>
<td></td>
</tr>
<tr>
<td>H2.c3</td>
<td>The relationship between SHRIM and PROSE is mediated by Organizational Citizenship Behaviours.</td>
<td></td>
</tr>
<tr>
<td>H3.</td>
<td>The relationship between SHRIM and the PROSE is mediated by the overall Worker-Organization Relationship</td>
<td></td>
</tr>
</tbody>
</table>

**H1. SHRIM predicts PROSE**

Standardized path beta coefficients regarding PROSE revealed that satisfaction with recruitment and selection -> PROSE is the most significant path ($B_{PROSE.RS} = 0.22$, SE=0.05, $\beta_{PROSE.RS} = 0.22$, $p < 0.001$), followed by satisfaction with pay/compensation -> PROSE ($B_{PROSE.Pay} = -0.23$, SE=0.03, $\beta_{PROSE.Pay} = -0.15$, $p < 0.001$) and satisfaction with teamwork -> PROSE ($B_{PROSE.Teamwork} = 0.09$, SE=0.04, $\beta_{PROSE.Teamwork} = 0.07$, $p = 0.05$); the remainder trajectories were non-significant.

Hence, we can conclude that Hypotheses 2 is partially confirmed, namely in the cases of satisfaction with recruitment and selection, satisfaction with pay and satisfaction with teamwork.
Figure 7.10 – Structural equations model for the different dimensions of the SHRIMQ and Performance Related Observations of Self-Efficacy ($\chi^2$/df=4.20; CFI=0.92; GFI=0.95; PGFI=0.78; RMSEA=0.06; $p>0.01$; CI 90% [0.05; 0.06])

H2.a1 SHRIM predicts Job Satisfaction

Standardized path beta coefficients regarding intrinsic job satisfaction and dimensions of the SHRIMQ revealed the existence of significance in the paths of intrinsic job satisfaction and training, teamwork, recruitment and selection and information, as is observable in table 7.23. Extrinsic job satisfaction seems to be affected by the levels of satisfaction with pay and R&S practices, as is clear in table 7.23.
Table 7.2. Regression estimates of the SEM model for the standardized path beta coefficients regarding the relationship of the SHRIMQ dimensions and Job Satisfaction.

<table>
<thead>
<tr>
<th>Path</th>
<th>B</th>
<th>SE</th>
<th>β</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intrinsic Job Satisfaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction with Training</td>
<td>0.12</td>
<td>0.02</td>
<td>0.06*</td>
<td>0.01</td>
</tr>
<tr>
<td>Intrinsic Job Satisfaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction with Pay</td>
<td>0.05</td>
<td>0.02</td>
<td>0.02</td>
<td>0.18</td>
</tr>
<tr>
<td>Intrinsic Job Satisfaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction with Teamwork</td>
<td>0.21</td>
<td>0.03</td>
<td>0.13***</td>
<td>0.00</td>
</tr>
<tr>
<td>Intrinsic Job Satisfaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction with Recruitment and Selection</td>
<td>0.21</td>
<td>0.04</td>
<td>0.17***</td>
<td>0.00</td>
</tr>
<tr>
<td>Intrinsic Job Satisfaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction with Intra-Departmental Cooperation</td>
<td>0.08</td>
<td>0.04</td>
<td>0.06</td>
<td>0.09</td>
</tr>
<tr>
<td>Intrinsic Job Satisfaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction with Performance Appraisal</td>
<td>0.02</td>
<td>0.02</td>
<td>0.01</td>
<td>0.61</td>
</tr>
<tr>
<td>Intrinsic Job Satisfaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction with Information</td>
<td>0.24</td>
<td>0.04</td>
<td>0.18***</td>
<td>0.00</td>
</tr>
<tr>
<td>Extrinsic Job Satisfaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction with Information</td>
<td>-0.02</td>
<td>0.06</td>
<td>-0.03</td>
<td>0.67</td>
</tr>
<tr>
<td>Extrinsic Job Satisfaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction with Performance Appraisal</td>
<td>0.03</td>
<td>0.04</td>
<td>0.03</td>
<td>0.37</td>
</tr>
<tr>
<td>Extrinsic Job Satisfaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction with Intra-Departmental Cooperation</td>
<td>0.00</td>
<td>0.06</td>
<td>0.00</td>
<td>0.96</td>
</tr>
<tr>
<td>Extrinsic Job Satisfaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction with Recruitment and Selection</td>
<td>0.11</td>
<td>0.06</td>
<td>0.16***</td>
<td>0.00</td>
</tr>
<tr>
<td>Extrinsic Job Satisfaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction with Teamwork</td>
<td>-0.01</td>
<td>0.04</td>
<td>-0.01</td>
<td>0.83</td>
</tr>
<tr>
<td>Extrinsic Job Satisfaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction with Pay</td>
<td>0.80</td>
<td>0.04</td>
<td>0.79***</td>
<td>0.00</td>
</tr>
<tr>
<td>Extrinsic Job Satisfaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction with Training</td>
<td>0.01</td>
<td>0.04</td>
<td>0.01</td>
<td>0.74</td>
</tr>
</tbody>
</table>

*p<0.05 ; ** p<0.01; *** p≤0.001
Figure 7.11 – Structural equations model for the different dimensions of the SHRIMQ and Job Satisfaction subscales ($\chi^2$/df=4.20; CFI=0.92; GFI=0.95; PGFI=0.78; RMSEA=0.06; $p>0.01$; CI 90% [0.05; 0.06])

H2.a2 Job Satisfaction predicts PROSE

Standardized path beta coefficients regarding the effects of job satisfaction on PROSE indicated very significant paths of both the extrinsic and intrinsic dimensions of job satisfaction with this endogenous variable, as is observable in table 7.24.

Table 7.24. Regression estimates of the SEM model for the standardized path beta coefficients regarding the relationship of Job Satisfaction and PROSE.

<table>
<thead>
<tr>
<th>Path</th>
<th>B</th>
<th>SE</th>
<th>$\beta$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROSE &lt;--- Intrinsic Job Satisfaction</td>
<td>0.43</td>
<td>0.0</td>
<td>7.84***</td>
<td>0.0</td>
</tr>
<tr>
<td>PROSE &lt;--- Extrinsic Job Satisfaction</td>
<td>-0.10</td>
<td>0.0</td>
<td>-4.51***</td>
<td>0.0</td>
</tr>
</tbody>
</table>

*p<0.05; ** p<0.01; *** p≤0.001
H2.a3 The relationship between SHRIM and PROSE is mediated by the different facets of Job Satisfaction.

The indirect (mediated) effect of SHRIM on PROSE is .087. That is, due to the indirect (mediated) effect of SHRIM on PROSE, when SHRIM goes up by 1, PROSE goes up by 0.087. This is in addition to any direct (unmediated) effect that SHRIM may have on PROSE.
Figure 7.13. Mediation model of SHRIM on PROSE, mediated by job satisfaction. ($\chi^2$/df=4.55; CFI=0.90; GFI=0.87; PGFI=0.76; RMSEA=0.06; p>0.01; CI 90% [0.06; 0.06])
H2.b1 SHRIM predicts Organizational Commitment

Significance was found for the paths of some of the SHRIMQ dimensions in all the components of organizational commitment.

Thus, concerning affective commitment, all dimensions of the SHRIMQ seem to act as predictors of this endogenous variable, except for performance appraisal; normative organizational commitment seems to be predicted by satisfaction with recruitment and selection and compensation, whereas continuance commitment seems to be affected only by satisfaction with teamwork.

Figure 7.14 – Structural equations model for the different dimensions of the SHRIMQ and the components of Organizational Commitment ($\chi^2$/df=4.33; CFI=0.90; GFI=0.88; PGFI=0.72; RMSEA=0.06; $p>0.01$; CI 90% [0.06; 0.06]).
Table 7.25. Regression estimates of the SEM model for the standardized path beta coefficients regarding the relationship of the SHRIMQ dimensions and the components of organizational commitment (affective, normative and continuance commitment).

<table>
<thead>
<tr>
<th>Path</th>
<th>B</th>
<th>SE</th>
<th>B</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>COC</td>
<td>---</td>
<td>Satisfaction with Training</td>
<td>0.12</td>
<td>0.08</td>
</tr>
<tr>
<td>COC</td>
<td>---</td>
<td>Satisfaction with Pay</td>
<td>-0.01</td>
<td>0.07</td>
</tr>
<tr>
<td>COC</td>
<td>---</td>
<td>Satisfaction with Teamwork</td>
<td>0.19</td>
<td>0.09</td>
</tr>
<tr>
<td>COC</td>
<td>---</td>
<td>Satisfaction with Recruitment and Selection</td>
<td>0.13</td>
<td>0.13</td>
</tr>
<tr>
<td>COC</td>
<td>---</td>
<td>Satisfaction with Service Cooperation</td>
<td>-0.02</td>
<td>0.14</td>
</tr>
<tr>
<td>COC</td>
<td>---</td>
<td>Satisfaction with Performance Appraisal</td>
<td>0.03</td>
<td>0.09</td>
</tr>
<tr>
<td>COC</td>
<td>---</td>
<td>Satisfaction with Information</td>
<td>-0.05</td>
<td>0.14</td>
</tr>
<tr>
<td>AOC</td>
<td>---</td>
<td>Satisfaction with Training</td>
<td>0.17</td>
<td>0.07</td>
</tr>
<tr>
<td>AOC</td>
<td>---</td>
<td>Satisfaction with Pay</td>
<td>0.10</td>
<td>0.05</td>
</tr>
<tr>
<td>AOC</td>
<td>---</td>
<td>Satisfaction with Recruitment and Selection</td>
<td>0.47</td>
<td>0.10</td>
</tr>
<tr>
<td>AOC</td>
<td>---</td>
<td>Satisfaction with Service Cooperation</td>
<td>0.27</td>
<td>0.11</td>
</tr>
<tr>
<td>AOC</td>
<td>---</td>
<td>Satisfaction with Performance Appraisal</td>
<td>0.04</td>
<td>0.07</td>
</tr>
<tr>
<td>AOC</td>
<td>---</td>
<td>Satisfaction with Information</td>
<td>0.26</td>
<td>0.10</td>
</tr>
<tr>
<td>NOC</td>
<td>---</td>
<td>Satisfaction with Training</td>
<td>0.06</td>
<td>0.06</td>
</tr>
<tr>
<td>NOC</td>
<td>---</td>
<td>Satisfaction with Pay</td>
<td>0.24</td>
<td>0.05</td>
</tr>
<tr>
<td>NOC</td>
<td>---</td>
<td>Satisfaction with Teamwork</td>
<td>-0.01</td>
<td>0.06</td>
</tr>
<tr>
<td>NOC</td>
<td>---</td>
<td>Satisfaction with Recruitment and Selection</td>
<td>0.27</td>
<td>0.09</td>
</tr>
<tr>
<td>NOC</td>
<td>---</td>
<td>Satisfaction with Service Cooperation</td>
<td>0.18</td>
<td>0.09</td>
</tr>
<tr>
<td>NOC</td>
<td>---</td>
<td>Satisfaction with Performance Appraisal</td>
<td>0.05</td>
<td>0.06</td>
</tr>
<tr>
<td>NOC</td>
<td>---</td>
<td>Satisfaction with Information</td>
<td>0.10</td>
<td>0.10</td>
</tr>
</tbody>
</table>

*p<0.05 ; ** p<0.01; *** p≤0.001
H2.b2 Organizational Commitment predicts PROSE.

Standardized path beta coefficients regarding the effects of organizational commitment on PROSE indicated a very significant path for affective organizational commitment on PROSE, but not the remaining components of organizational commitment, as is observable in table 7.26.

Table 7.26. Regression estimates of the SEM model for the standardized path beta coefficients regarding the relationship of Organizational Commitment and PROSE.

<table>
<thead>
<tr>
<th>Path</th>
<th>B</th>
<th>SE</th>
<th>β</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROSE ←--- NOC</td>
<td>-0.08</td>
<td>0.04</td>
<td>-2.16</td>
<td>0.03</td>
</tr>
<tr>
<td>PROSE ←--- AOC</td>
<td>0.18</td>
<td>0.03</td>
<td>5.47***</td>
<td>0.00</td>
</tr>
<tr>
<td>PROSE ←--- COC</td>
<td>0.00</td>
<td>0.02</td>
<td>-0.19</td>
<td>0.85</td>
</tr>
</tbody>
</table>

*p<0.05 ; ** p<0.01; *** p≤0.001

Figure 7.15 – Structural equations model for the different components of organizational commitment and Performance Related Observations of Self-Efficacy ($\chi^2$/df=7.04; CFI=0.90; GFI=0.92; PGFI=0.64; RMSEA=0.08; p>0.01; CI 90% [0.07; 0.09])
H2.b3 The relationship between SHRIM and PROSE is mediated by the different components of Organizational Commitment.

The indirect (mediated) effect of SHRIM on PROSE is 0.13. That is, due to the indirect (mediated) effect of SHRIM on PROSE, when SHRIM goes up by 1, PROSE goes up by 0.13. This is in addition to any direct (unmediated) effect that SHRIM may have on PROSE.

Figure 7.16. Mediation model of SHRIMQ on PROSE, mediated by organizational commitment. ($\chi^2$/df=3.04; CFI=0.91; GFI=0.88; PGFI=0.77; RMSEA=0.06; p>0.01; CI 90% [0.05; 0.06]).

H2.c1 SHRIM predicts Organizational Citizenship Behaviours

Standardized path beta coefficients regarding helping behaviours and dimensions of the SHRIMQ revealed the existence of significance in the paths of helping behaviours and satisfaction with pay and information, as is observable in table 7.27. Voice behaviours seem to be affected by the levels of satisfaction with pay and teamwork, as is clear in table 7.27.
### Table 7.27. Regression estimates of the SEM model for the standardized path beta coefficients regarding the relationship of the SHRIMQ dimensions and Job Satisfaction.

<table>
<thead>
<tr>
<th>Path</th>
<th>B</th>
<th>SE</th>
<th>β</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Helping Behaviors</td>
<td>&lt;---</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction with Information</td>
<td>-0.01</td>
<td>0.05</td>
<td>-0.14</td>
<td>0.89</td>
</tr>
<tr>
<td>Satisfaction with Pay</td>
<td>-0.19</td>
<td>0.04</td>
<td>-4.59***</td>
<td>0.00</td>
</tr>
<tr>
<td>Satisfaction with Teamwork</td>
<td>0.18</td>
<td>0.06</td>
<td>3.06***</td>
<td>0.00</td>
</tr>
<tr>
<td>Helping Behaviors</td>
<td>&lt;---</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction with Recruitment and Selection</td>
<td>0.22</td>
<td>0.08</td>
<td>2.76**</td>
<td>0.01</td>
</tr>
<tr>
<td>Helping Behaviors</td>
<td>&lt;---</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction with Service Cooperation</td>
<td>0.20</td>
<td>0.08</td>
<td>2.37*</td>
<td>0.02</td>
</tr>
<tr>
<td>Helping Behaviors</td>
<td>&lt;---</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction with Performance Appraisal</td>
<td>-0.06</td>
<td>0.05</td>
<td>-1.09</td>
<td>0.28</td>
</tr>
<tr>
<td>Helping Behaviors</td>
<td>&lt;---</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction with Information</td>
<td>0.29</td>
<td>0.09</td>
<td>3.30***</td>
<td>0.00</td>
</tr>
<tr>
<td>Helping Behaviors</td>
<td>&lt;---</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction with Training</td>
<td>-0.02</td>
<td>0.05</td>
<td>-0.30</td>
<td>0.76</td>
</tr>
<tr>
<td>Voice Behaviors</td>
<td>&lt;---</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction with Pay</td>
<td>-0.16</td>
<td>0.04</td>
<td>-3.83***</td>
<td>0.00</td>
</tr>
<tr>
<td>Voice Behaviors</td>
<td>&lt;---</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction with Teamwork</td>
<td>0.26</td>
<td>0.06</td>
<td>4.37***</td>
<td>0.00</td>
</tr>
<tr>
<td>Voice Behaviors</td>
<td>&lt;---</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction with Recruitment and Selection</td>
<td>0.26</td>
<td>0.08</td>
<td>3.27***</td>
<td>0.00</td>
</tr>
<tr>
<td>Voice Behaviors</td>
<td>&lt;---</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction with Service Cooperation</td>
<td>0.22</td>
<td>0.08</td>
<td>2.61**</td>
<td>0.01</td>
</tr>
<tr>
<td>Voice Behaviors</td>
<td>&lt;---</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction with Performance Appraisal</td>
<td>-0.11</td>
<td>0.05</td>
<td>-2.13*</td>
<td>0.03</td>
</tr>
<tr>
<td>Voice Behaviors</td>
<td>&lt;---</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction with Information</td>
<td>0.28</td>
<td>0.09</td>
<td>3.20***</td>
<td>0.00</td>
</tr>
</tbody>
</table>

*p<0.05 ; **p<0.01; *** p≤0.001
Figure 7.17. Structural equations model for the different dimensions of the SHRIMQ and the components of Helping and Voice Behaviors (χ²/df=5.77; CFI=0.90; GFI=0.87; PGFI=0.71; RMSEA=0.07; p>0.01; CI 90% [0.07; 0.07])

H2.c2 Organizational Citizenship Behaviours predict PROSE

Standardized path beta coefficients regarding the effects of helping and voice behaviours on PROSE indicated very significant paths of both dimensions with this endogenous variable, as is observable in table 7.28, although voice behaviours present a higher level of significance than does helping behaviours.

Table 7.28. Regression estimates of the SEM model for the standardized path beta coefficients regarding the relationship of Job Satisfaction and PROSE.

<table>
<thead>
<tr>
<th>Path</th>
<th>B</th>
<th>SE</th>
<th>β</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROSE &lt;--- Helping Behaviors</td>
<td>0.10</td>
<td>0.05</td>
<td>2.11*</td>
<td>0.04</td>
</tr>
<tr>
<td>PROSE &lt;--- Voice Behaviors</td>
<td>0.13</td>
<td>0.05</td>
<td>2.73**</td>
<td>0.01</td>
</tr>
</tbody>
</table>

*p<0.05 ; ** p<0.01; *** p≤0.001
H2.c3 The relationship between SHRIM and PROSE is mediated by Organizational Citizenship Behaviours.

The indirect (mediated) effect of SHRIM on PROSE is 0.17. That is, due to the indirect (mediated) effect of SHRIM on PROSE, when SHRIM goes up by 1, PROSE goes up by 0.17. This is in addition to any direct (unmediated) effect that SHRIM may have on PROSE.
H3. The relationship between SHRIM and the PROSE is mediated by the overall Worker-Organization Relationship

The indirect (mediated) effect of SHRIM on PROSE is 0.37. That is, due to the indirect (mediated) effect of SHRIM on PROSE, when SHRIM goes up by 1, PROSE goes up by 0.37. This is in addition to any direct (unmediated) effect that SHRIM may have on PROSE.
After testing all hypotheses and in view of the results in hypotheses H1a to H2.c3 we wondered if instead of considering the entire worker organization model we had theoretically construed, the actual mediator might be the more emotional element present in this relationship conceptually composed of intrinsic satisfaction, affective organizational commitment and helping and voice behaviours, proceeding to test this hypotheses, as is shown if figure 7.21.

The indirect (mediated) effect of SHRIM on PROSE is 0.20. That is, due to the indirect (mediated) effect of SHRIM on PROSE, when SHRIM goes up by 1, PROSE goes up by 0.20. This is in addition to any direct (unmediated) effect that SHRIM may have on PROSE.
Figure 7.21. Mediation model of SHRIMQ on PROSE, mediated by the Emotional Worker Organization Relationship (intrinsic job satisfaction, affective organizational commitment and helping and voice behaviours). ($\chi^2$/df=3.64; CFI=0.91; GFI=0.84; PGFI=0.85; RMSEA=0.05; $p=0.004$; CI 90% [0.05; 0.06]).

According to the questions raised during the literature review we were also curious to see if the model fit the subjects according to their professional groups. In this task we were faced with a setback because not all the professional groups had enough subjects to run the SEM model we had come up with.

In this context we divided the professions in clinical and non clinical to run the original models.
The indirect (mediated) effect of SHRIM on PROSE on the clinical staff is 0.30. That is, due to the indirect (mediated) effect of SHRIM on PROSE, when SHRIM goes up by 1, PROSE goes up by 0.30. This is in addition to any direct (unmediated) effect that SHRIM may have on PROSE.
The indirect (mediated) effect of SHRIM on PROSE on the non-clinical staff is 0.45. That is, due to the indirect (mediated) effect of SHRIM on PROSE, when SHRIM goes up by 1, PROSE goes up by 0.45. This is in addition to any direct (unmediated) effect that SHRIM may have on PROSE.
The indirect (mediated) effect of SHRIM on PROSE on the non-clinical staff is 0.18. That is, due to the indirect (mediated) effect of SHRIM on PROSE, when SHRIM goes up by 1, PROSE goes up by 0.18. This is in addition to any direct (unmediated) effect that SHRIM may have on PROSE.
The indirect (mediated) effect of SHRIM on PROSE on the non-clinical staff is 0.22. That is, due to the indirect (mediated) effect of SHRIM on PROSE, when SHRIM goes up by 1, PROSE goes up by 0.22. This is in addition to any direct (unmediated) effect that SHRIM may have on PROSE.

7.5. Conclusion
In this chapter we analysed some crucial aspects that led to the test of the previously proposed theoretical relationships. We started by analysing the reliability and validity of the scales used in this study. We proceeded by doing an exploratory analysis of data, and then presented our data analysis, testing hypotheses and the proposed model.

Generally speaking it is adequate to say that the measurement model presents good properties and the structural models confirmed either completely or partially our hypotheses, while maintaining good fit properties.
<table>
<thead>
<tr>
<th>Hypotheses Number</th>
<th>Hypotheses</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1.</td>
<td>SHRIM predicts PROSE</td>
<td>Partially Confirmed</td>
</tr>
<tr>
<td>H2.a1</td>
<td>SHRIM predicts Job Satisfaction</td>
<td>Partially Confirmed</td>
</tr>
<tr>
<td>H2.a2</td>
<td>Job Satisfaction predicts PROSE</td>
<td>Confirmed</td>
</tr>
<tr>
<td>H2.a3</td>
<td>The different facets of Job Satisfaction mediate the relationship between SHRIM and PROSE.</td>
<td>Confirmed</td>
</tr>
<tr>
<td>H2.b1</td>
<td>SHRIM predicts Organizational Commitment</td>
<td>Partially Confirmed</td>
</tr>
<tr>
<td>H2.b2</td>
<td>Organizational Commitment predicts PROSE</td>
<td>Partially Confirmed</td>
</tr>
<tr>
<td>H2.b3</td>
<td>The relationship between SHRIM and PROSE is mediated by the different components of Organizational Commitment.</td>
<td>Confirmed</td>
</tr>
<tr>
<td>H2.c1</td>
<td>SHRIM predicts Organizational Citizenship Behaviours</td>
<td>Partially Confirmed</td>
</tr>
<tr>
<td>H2.c2</td>
<td>Organizational Citizenship Behaviours predict PROSE</td>
<td>Confirmed</td>
</tr>
<tr>
<td>H2.c3</td>
<td>The relationship between SHRIM and PROSE is mediated by Organizational Citizenship Behaviours.</td>
<td>Confirmed</td>
</tr>
<tr>
<td>H3.</td>
<td>The relationship between SHRIM and the PROSE is mediated by the overall Worker-Organization Relationship</td>
<td>Confirmed</td>
</tr>
</tbody>
</table>

Additionally we tested:

| H3.1               | The relationship between SHRIM and the PROSE is mediated by the Emotional Worker-Organization Relationship | Confirmed |
| H3.2               | There is a difference between clinical and non-clinical staff in the way the relationship between SHRIM and the PROSE is mediated by the overall Worker-Organization Relationship | Confirmed |
| H3.3               | There is a difference between clinical and non-clinical staff in the way the relationship between SHRIM and the PROSE is mediated by the Emotional Worker-Organization Relationship | Confirmed |
Chapter 8 - Discussion

“So how, children, does the brain, which lives without a spark of light, build for us a world full of light?” – Anthony Doerr, “All the light we cannot see”
Chapter 8 – Discussion
In this section we present the discussion of the research results. We will begin by dis-
cussing each of the psychometric assessment of the instruments, then proceed to analyse
the different sets of hypotheses considering their partial or complete confirmation, since
none of our hypotheses were rejected.

8.1. Instruments and exploratory results
The results section begins by addressing the important issue of the validity and reliabil-
ity of the instruments used to collect data (Fields, 2002). Whenever possible we chose
to use previously validated scales that had a history of validity and reliability in the Por-
tuguese population, which meant we used the MSQ to measure job satisfaction, the
OCS to measure organizational commitment and HVBS to measure organizational citi-
zenship behaviours. When the constructs we were trying to assess were either very con-
text specific or new in the literature review, new instruments were created, based on
other existing measures. We created the SHRIMQ to assess satisfaction with human
resources’ issues management and adapted PROSES to assess performance related self-
efficacy.

Results show that the instruments adopted in this study are valid and reliable, which is
to say they are fit to use in our sample. The afore mentioned instruments required some
rearrangements (namely, items from the affective and normative commitment scales got
mixed up together, as is frequent in the literature [e.g. Bergman, 2006] and the same
happened to items from the helping and voice behaviour scales). Items were dropped
from all three instruments due to low communalities and/or simultaneous factor load-
ings (Hair et al., 2009; Maroco, 2010; Tabachnik & Fidel, 2007).

The scales we developed and adapted for this study proved also to be valid and reliable,
although some adjustments also were made, concerning items with low communalities
that needed to be dropped in order to ensure the appropriate psychometric values (Hair
et al., 2009; Maroco, 2010; Tabachnik & Fidel, 2007).

These findings constitute an added value to the literature since the existence of and reli-
able and validated instruments is often an issue when conducting research. The availa-
bility of such measures allows for the researchers to collect data with confidence that
the constructs they are trying to assess are actually the ones being measured, so that the
inferences and conclusions drawn upon these can be done with the appropriate rigour (Fields, 2002).

Our sample is nearly 1000 subjects, encompassing all types of hospital workers, which steps beyond the traditional preponderance of research on physicians, nurses and administrators (Bartunek, 2014) to include clinical and non clinical staff such as multiple types of therapeasts, pharmacists, laboratory technicians, and so forth who also contribute largely to the successful delivery of healthcare directly or indirectly speaking.

This hospital has a population of workers who is mostly young as can be observed in figure 7.6, which is in consonance with seniority in the hospital having a mode of 3 years and an average of 12.38 years. Most workers have a tenured contract (effective contract in the Portuguese framework terms), which might permit issues like job insecurity to be eschewed. Most workers have an undergraduate degree and most workers are female, as is usual in the literature on healthcare workers.

In the exploratory analysis of the constructs results in the population it became at once clear that scales have results that range from minimum to maximum values, which means that all the Likert points were used and that the scales are not biased.

Almost all scales report values above the mean point of the scale, save for pay or extrinsic satisfaction, which means that hospital workers are most dissatisfied about their compensation packages.

Affective commitment (commitment based on emotional ties the employee develops with the organization primarily via positive work experiences), harnesses the highest levels in the population as one would expect from the type of commitment that has been most studied in the OC family in the healthcare context (Kehoe & Wright, 2013). Takeuchi & Takeuchi (2013) discussed if the commitment in healthcare workers would concern more the organization or the job and concluded that for Japanese healthcare workers the improvement of job quality is a consequence of the affective commitment with the organization itself. High levels of affective commitment therefore are in line with the culture of excellence and the good reputation that the surveyed hospital enjoys.

Continuance commitment (commitment based on the perceived costs, both economic and social, of leaving the organization) was the second highest in this set and finally the normative commitment (perceived obligation towards the organization, rooted in the
norms of reciprocity). The fact that continuance commitment is the second in rank is not great news as it can be a clear reflection of the tough economic times experienced in 2012 and the shortage of jobs, namely in the healthcare sector - employees who are high in continuance commitment are committed to stay with a given employer, regardless of their emotional detachment, because they have significant organization-specific investments, too few options for alternative employment, or both (Boichuk & Menguc, 2013). High levels of continuance commitment have been associated with discouragement to improve job quality in Japanese healthcare workers (Takeuchi & Takeuchi, 2013).

Both helping and voice behaviours and performance related observations of self-efficacy have high mean values, which is in itself an indicator, although it can be somewhat inflated by the social desirability bias, the tendency of survey respondents to answer questions in a manner that will be viewed favourably by others (Fisher, 1993). Regardless, this population views itself as performing organizational citizenship behaviours and having a good self-efficacy. OCB’s seem to be more important in service organizations than non-service (Wang, 2009) and have been perceived as related to a myriad of positive outcomes (cf. p. 58 of this work).

Performance related self-efficacy, as was established in the literature review, is a significant antecedent of both job performance (Stajkovic & Luthans, 1998) as well as the general attitude of resourcefulness and resilience in workers (Allen-Brown, 1998; Saks, 1995), which in the health care context is especially important given the amount of stress induced pathologies in healthcare workers (Bakker et al., 2001) and occupational stress consequences for patients mentioned in the literature (e.g., Blatnik & Lesnicar, 2006; West et al., 2006).

Women in our sample present values that are significantly higher than men’s concerning satisfaction with performance appraisal, service cooperation, recruitment and selection, training and global satisfaction with human resources’ issues management.

Smith (2002) reflects that women intensive environments are more prone to having women in job authority positions, especially in the public sector, as is the case. Smith (2002) adds that at a meso-level majority-group gatekeepers are positioned at the entry ports and promotional ladders of jobs/organizations or establishments are typically charged with the responsibility of making the types of decisions that often lead to the perpetuation of their group in power, even if this might not be done on purpose or con-
scientiously. This type of discrimination happens because the people who fit with the majority and with job authority tend to share values and attitudes more easily and naturally than others from the exogroup (Smith, 2002). These findings are in accordance with the areas of HRIM with which women are more satisfied than men (e.g., performance appraisal, recruitment and selection, etc.).

Men and women had similar levels of satisfaction with information and teamwork; these two areas where colleagues tend to play a bigger role than a more distal figure of “the organization” and more traditional “HRM”. There were also no significant differences concerning the expression of (dis)satisfaction regarding pay, probably because dissatisfaction had a higher power than any gender bias in this case. This finding is consistent with Settles, Cortina, and Miner’s (2012) work, who mention that equal dissatisfaction concerning pay may be a reflection of equal financial responsibilities of both men and women regarding their dependents and their needs and who add that perhaps other worker characteristics different from gender (and in their case also marital status) might be influencing job dissatisfaction (e.g., job inputs, task characteristics).

Also, women reported higher levels of intrinsic job satisfactions and global job satisfaction. These findings are in accordance with the literature on gender differences in job satisfaction, according to Clark (1997) who proposes that the notion of relative well-being is especially relative to workers’ expectations. An identical man and woman with the same jobs and expectations would report identical job satisfaction, but the authors sustains that women's expectations are lower than men's which leads to a higher level of satisfaction. Kidder (2002) refers also that this tendency may be due to the fact that women focus on different aspects of work in arriving at a given level of job satisfaction.

Women also report higher normative, continuance and global organizational commitment values, but bare no differences with their male counterparts concerning affective organizational commitment. Gender differences in organizational commitment are strongly associated with differences in the psychological contract (Scandura & Lankau, 1997) and to how the organization meets one’s needs. Thus, women seem to develop a greater sense of loyalty and moral indebtedness with the organization in question than their male counterparts (NOC), while perceiving lesser alternatives to their current job (COC). Affective commitment, which reflects how much employees “like” the organization bears no difference between male and female workers.
Helping and voice behaviours showed no significant gender differences, indicating a similar reporting of OCB’s. This is an interesting result in the sense that these results come from self-reporting measures. Research indicates that women are perceived by others as performing more helping type of OCB’s, whereas men are perceived as more active voice actors, and that these OCB’s tend to be more engaged by their corresponding gender association (Kidder, 2002). Kidder (2002), however, proposes that it is not only gender that matters, and proposes that gender orientation and gender-type occupation (the dominant [in terms of numerical superiority] Is key. Gender in any occupation tends to be associated with the type of behaviours that are expected from those professions; the nursing profession, for instance it is clearly a stereotypically “female” occupation, and the same can be said for the vast majority of health care related jobs). Thus, although it is possible that gendered identities may be involved also in terms of self-reported performance of OCB’s, the gender-type occupation may be playing a more predominant role than the individual gender identity, which is in line with Kidder’s (2002) findings.

In a meta-analysis on gender differences and similarities, Hyde (2005) made another argument for the lack of gender differences in findings: the fact that we may be attributing too much importance to gender differences where other factors may be of more importance, stating that males and females are similar in most but not all psychological variables. The author also proposed that claims of gender differences in the workplace may cause harm in numerous realms, including women’s opportunities, especially since, these claims are not consistent with the vast majority of scientific data (Hyde, 2005), which may constitute fodder or thought in this matter.

In our sample, PROSE was also indifferent to gender differences, indicating that one’s perception of one’s self-efficacy might be immune to gender differences as well.

Age correlates positively with satisfaction with pay and extrinsic job satisfaction. This can be due to the fact that older workers tend to be better paid and compensated in general than their younger and less experienced counterparts.

Older workers are less satisfied with training offered by the organization, which might indicate that the organization attends to training needs of newcomers in a more effective fashion than their older workers.
Age is also positively associated with all forms of commitment except continuance commitment. It would be expectable that in general the longer a person stays with an organization the more they are likely to feel attached to it (Meyer & Allen, 1997). However it is a bit surprising that COC did not correlate significantly with age since the tendency is that the older workers get, the less alternatives they tend perceive to their current jobs (COC). In this case we believe these results might be due to a comprehension that there is mobility and a high demand for professionals in this area, and that experience is an advantage in this specific sector.

Helping and voice behaviours are positively correlated with respondents’ age. This might be due to the fact that respondents that are older and more confident of their role in the organization are more fearless to speak out (voice behaviours) and more confident to help others (helping behaviours).

PROSE is not correlated with age at all, which can mean that this is a measure that is immune to age and life experience, and might point to its intrinsic value as an assessment of the respondents’ self-efficacy concerning their own observations of performance.

Some differences emerged from the group comparisons we conducted and although they may seem plentiful, only 48 group differences out of the 126 possible combinations occurred. These differences reveal some patterns that have to do with the highest and lowest ranking jobs in terms of status in the hospital and that also reflect the highest and lowest amount of training, pay, etc.

Helpers seem to be the most satisfied with HRIM in general: they are happier with information and performance appraisal than allied healthcare professionals and in the last case also than technical assistants.

Helpers are more satisfied with training than all their counterparts, which can be due to the fact that this job category has less training and academic background in general, and therefore may feel any training as better than their more educated peers.

Medical doctors are more extrinsically satisfied with their job than all other workers, which is consistent with the fact that generally speaking they are the best-paid position in the Hospital.
Helpers in general show higher levels of organizational commitment than their colleagues, which might be due both to the nature of the job that entails the highest level of contact with patients, which might influence AOC, since it permits a higher tangibility of results and the importance of their work and the organizations work, but also due to the low level of training and high unemployment rates at the time: workers may feel that they have less alternatives (higher COC) and that they feel have a bigger loyalty debt to the organization for giving them an opportunity to work (NOC).

Helpers also report conducting higher levels of Helping and Voice Behaviours than all other workers. These might be subject to some desirability bias, where helpers may feel that they are expected to do more helping and voice behaviours than others, or it might be due to the nature of the work, where more comradry might be developed, hence more helping behaviours and more voice behaviours.
8.3. Hypotheses concerning the SHRIM – PROSE direct relationship

Hypothesis 2 of this study was partially confirmed. Strong HR practices have consistently been associated with important attitudinal and behavioural employee outcomes. Specifically, substantial evidence based on previous empirical work in the SHRM realm supports the relationship between high-performance HR practices and organizational performance, and a smaller amount of evidence based on more recent studies has begun to point to a link between high-performance HR practices and employee outcomes; however, both these streams of work have largely depended on the use of managerial reports of HR practice use (Kehoe & Wright, 2013).

As discussed earlier, a variety of reasons explain why managers’ reported HR practice use may not relate in expected ways to desired employee outcomes (Bowen & Ostroff, 2004; Nishii & Wright, 2008) and as seen before, PROSE is the most adequate and accurate performance related indicator we could find.

As such, an examination of the role of employees’ perceptions of HR practice, specifically SHRIM, use in determining positive outcomes represented an important need in the literature (Kehoe & Wright, 2013) and, thus, a key contribution of the present study.

In our study we verified that 3 out of the 7 dimensions of SHRIMQ predicted PROSE. Satisfaction with information, performance appraisal, service cooperation and training do not seem to predict PROSE; unlike satisfaction with recruitment and selection, satisfaction with pay and satisfaction with teamwork, which is to say satisfaction with the way people begin the psychological contract, satisfaction with financial and tangible compensation and satisfaction with how people get along in their work environment dictate how much PROSE an employee will have.
8.4.a. Hypotheses concerning Job Satisfaction

Hypothesis 2.a1 was partially confirmed. The connection between SHRIM and JS is an intuitive one. However, this study demonstrated that not all aspects of SHRIM predict JS which on the one side is a sign of construct differentiation and on the other is an indicator of specific areas managers can act upon as to promote JS.

Thus, extrinsic job satisfaction seems to be predicted by the levels of satisfaction with pay and RS practices.

The strong connection between extrinsic satisfaction and satisfaction with pay is not only expected as the lack of such a connection would be illogical and could point to failures in the construction of the scales. Since extrinsic job satisfaction refers to external compensations that derive from the workers job and pay is in itself an external compensation for people’s job, this connection is self-explanatory. The connection with extrinsic JS and Satisfaction with RS, however requires a less “on the nose” framework. Satisfaction with RS may dictate how happy subjects are with the way their psychological contract was established, and how their expectations regarding the employment relationship were established and set. Hence, satisfaction with the way psychological contract was established may dictate how extrinsically happy workers are, since it can also

Figure 5.2 – Graphic representation of hypotheses 2a1, 2a2 and 2a3 of this study
be related with how happy they are with the way the organization is meeting those same expectations.

Intrinsic job satisfaction is predicted by satisfaction with training, teamwork, recruitment and selection and information in this sample.

Intrinsic job satisfaction might be in consonance with SHRIM since it may lead to a perception that workers have better conditions to do the job they are performing, allowing them to have the desired impact in the community and the “pleasure of a job well done” and increasing intrinsic motivation (Bonenberger, Aikins, Akweongo, 2014; Deci, Koestner, & Ryan, 1999). Also, job satisfaction has been consistently associated with general life satisfaction (Tennison, 1996) which might means that workers might that have a general inclination for satisfaction in life might also indicate higher satisfaction with job and SRHIM. Lu, Barriball, Zhanga, and While (2012), in a systematic review of the literature point to the fact that in the nursing population the working conditions are a major antecedent of job satisfaction.

Satisfaction with training might be a predictor of intrinsic JS in the sense that workers are happiest with the training they consider most useful to them (Schmidt, 2007)) and that might lead to their better competencies in doing their job, thus augmenting intrinsic job satisfaction. Using the same rational, satisfaction with teamwork and information sharing can be associated with the feeling that workers will be better able to do their job more efficiently and more impactfully when they have those aids, thus augmenting their feeling of intrinsic job satisfaction.

Satisfaction with RS as the starting point of the psychological contract might also influence intrinsic job satisfaction, as it also conveys the organization’s policies and values concerning the type of people and sought-after characteristics of their staff (Cole et al, 2007). The more employees are happy with this type of practices, the more they will express intrinsic satisfaction.

Previous research had already associated job satisfaction with non monetary elements of the employment relationship: Janus and colleagues (2007) suggest that non-monetary factors are important determinants of physician job satisfaction, perhaps more important than monetary incentives that may augment or reduce physicians’ base incomes. Factor analysis revealed seven principal factors of which decision-making and recognition,
continuous education and job security, administrative tasks and collegial relationships were highly significant, specialized technology and patient contact were significant and research and teaching and international exchange were not significant in contributing to physician job satisfaction. Kalisch, Lee, and Rochman (2010) demonstrate that within nursing teams on acute care patient units, a higher level of teamwork and perceptions of adequate staffing leads to greater job satisfaction with current position and occupation.

Hypothesis 2.a2 was confirmed. Both intrinsic and extrinsic job satisfaction are significant in predicting PROSE, although intrinsic job satisfaction has a positive relationship with PROSE, whereas extrinsic job satisfaction has a negative one.

Results regarding intrinsic satisfaction are pretty much what was expected and had been substantiated in chapter 5, when the hypothesis was formulated. Previous research had found satisfied workers to be more actively engaged in activities that are considered as facilitative to organisational goals than their dissatisfied work colleagues (Arye et al, 2002), and this makes sense especially in the case of intrinsic job satisfaction which Herzberg (1966) termed as focusing on achievement, recognition, responsibility, advancement, growth, and the work itself. Bandura’s (2006) social learning theory states that experiences of mastery bring about a higher motivation to replicate behaviours. Thus, if an employee is experiencing a higher sense of enjoyment deriving from their work it will probably be associated with a higher level of self-efficacy and mastery.

Still according to Herzberg (1966) extrinsic or hygiene factors are supervision, working conditions, co-workers, pay, policies and procedures, job security, status, and personal life and concerning Lu et al. (2012) working conditions are among the most important antecedents of JS in nurses.

In our case, extrinsic satisfaction contains 2 different items that concern being praised for one’s job and the chances for advancement in one’s job. Our results indicate that employees that aren’t getting as much praise and that have less of a chance to advance in their careers in the organization tend to feel that they are doing a better job. This can be a result of poor praising practices in the organization (the way a praise is conducted can be good or not) and that when employees are less focused on their career advancements they tend to pay more attention to the job itself (Pink, 2011).
Results can also be analysed using the self-determination theory framework (Deci & Ryan, 1985). In this framework, people are seen as active organisms, with evolved tendencies toward growing, mastering ambient challenges, and integrating new experiences into a coherent sense of self. These natural developmental tendencies have a dialectical relationship with the environment, which is to say that they require on-going social nutriments and supports, namely responding to the human need for basic psychological needs for autonomy, competence, and relatedness (Ryan & Deci, 2000). Thus motivation is self-determined but is influenced by the environment. In our study respondents show that a high level of intrinsic satisfaction is related with better PROSE, which is consistent with this theory, and results regarding the negative relationship between extrinsic satisfaction and PROSE can be interpreted in the sense that more self-determined subjects (those depending less on external factors) tend to have a higher performance related self-efficacy.

Hypothesis 2.a3 was confirmed. Employee attitudes, especially job satisfaction, are seen as an important element in the ‘black box’ between HRM and performance. Vermeeren and colleagues (2011) remind us that a more extensive use of HR practices leads to more satisfied employees and this greater satisfaction ‘reflects’ on the clients, as satisfied employees will do more for them. Moreover, satisfied workers are less likely to call in sick than less satisfied workers (Vermeeren et al., 2014).

Our results reflect these ideas that are also generally supported in the literature as was mentioned in the literature review and the chapter on research questions, models and hypotheses. As such this study meets the findings of a great number of studies that have consistently found strong and positive relationships between job satisfaction and productive organisational behaviours (Gyekye, 2005).
8.4.b. Hypotheses concerning Organizational Commitment

Figure 5.3 – Graphic representation of hypotheses 2b1, 2b2 and 2b3 of this study

Hypothesis 2.b1 was partially confirmed. Our results show that affective commitment is predicted by all dimensions of the SHRIMQ except for performance appraisal; normative organizational commitment seems to be predicted by satisfaction with staffing and compensation, and continuance commitment seems to be affected only by satisfaction with teamwork.

Organizational commitment, the bond between a worker and the organization, be it affective, normative or continuance, is, according to social exchange theory the direct result of individuals understanding a relationship as rewarding, in the sense that they become bound to return benefits or favours to their partners in exchange (Blau, 1983). Previous research had already concluded that individual HRM practices or bundles thereof play a positive role in the development of OC (Appelbaum, Bailey, Berg, & Kalleberg, 2000; Gould-Williams, 2003); our study confirms these findings through the lens of HRIM perception.

Although not originally hypothesized it is not completely surprising to see that in the healthcare sector, affective commitment is predicted by more dimensions of HRIM,
since this variable is more frequently associated with other variables in this work setting (Buchan, 2004; West et al., 2006).

Thus, affective commitment is predicted by all variables of SHRIM except performance appraisal; this can be due to the fact that there is no consistent performance appraisal practice for all the groups of workers in the Portuguese Hospital Setting (nurses are evaluated via a report every three years, some doctors and allied healthcare technicians aren’t appraised at all, and administrative staff is subject to SIADAP). It seems however clear that the more people are satisfied with HRIM, the more they identify with organization and want to remain because of affective issues.

Normative organizational behaviour, the moral obligation to remain in the organization and the feeling of loyalty is predicted by satisfaction with RS, which can be construed as the origin of the social contract. The RS moment is the arguably first direct contact with the organization for most workers and it is fair to say that expectations are created essentially in this moment. Pay is also a predictor of the NOC, arguably because people feel more grateful towards the organization the more they feel obliged by the organization.

Continuance organization behaviour is only predicted by the satisfaction with teamwork, which can be a reflection of the feeling of importance and uniqueness of teams in healthcare. All other elements of SHRIM are more or less replicable in different hospitals, however teams are often felt as the more variable influential element in Hospitals.

Previous research had also found in a field experiment (Probst, 2003) that organisational restructuring affected employees’ perceptions of job security and had consequences on organisational commitment, turnover and psychological well being.

Hypothesis 2.b2 was partially confirmed. Only affective commitment seems to predict PROSE. This might be explained by the fact that affective commitment has to do with a personal identification with the organization and its values. The higher a person is affectively committed to the organization they work for the more likely they are to feel that they are doing because not only are they willing to go beyond what their job is strictu sensu, but also the more effortless this attitude is.
Previous research had also referred that low organizational commitment (and low job satisfaction) led workers to carry out withdrawal behaviours and are also more likely to experience job insecurity and to react more negatively to it (Hartley, Jacobson, Klandermans, & van Vuuren, 1991), which can contribute to the explanation of why affective organizational commitment predicts PROSE.

Hypothesis 2.b3 was partially confirmed. This hypothesis is confirmed regarding affective organizational behaviour, but not the other types of commitment.

Kehoe and Wright (2013) had already developed some work that indicated the importance of affective organizational commitment as a mediator having demonstrated significant relationships between employees’ HR practice perceptions and affective commitment, as well as important behavioural outcomes. These authors, not unlike us, based their explanation for this on a sequence consistent with social exchange theory, and suggested that employees’ perceptions of high-performance HR practice use likely affect employees’ behaviours to at least some extent through their effect on an important attitudinal outcome—that is, affective commitment, which is significant: “Whereas previous work in this area has acknowledged the importance of social exchange processes in the sequence by which HR practices affect employee behaviours, to date, little if any work has theoretically and empirically addressed the role of attitudes in creating the context necessary for desirable behaviours to consistently emerge from the implementation of a high-performance HR system” (Kehoe & Wright, 2013, p.368).

This hypothesis is not estrange to other recent research works, such as the one developed by Xerri (2013) where employees’ Satisfaction with HRM was assumed to influence organizational commitment and job involvement, which would eventually affect employees’ turnover intentions and job quality, thus reflecting a mediated relationship that relates to our own findings.
8.4.c. Hypotheses concerning Organizational Citizenship Behaviours

Hypothesis 2.c1 was partially confirmed. Satisfaction with pay is inversely related with both helping and voice behaviours, suggesting that it is the workers that are least satisfied with pay that are more vocal concerning the status quo of the institution (voice behaviours) and that help others more in order to help the organization. Workers that are less satisfied with pay may feel that they have less to lose and therefore be more prompt to break the silence in the situations that they feel need to change. Also workers that feel less satisfied with pay may convey their efforts to their colleagues and create alternative sources of extrinsic satisfaction in the workplace, e.g., via more helping behaviours in the workplace.

Further, extra-role organizational citizenship helping behaviours are also predicted by satisfaction with information: workers that are happiest with the way information is conveyed in their organization may feel more confident engaging in helping behaviours, because they will not be afraid of “stepping on any toes” or being misinterpreted in their deeds.

Extra-role organizational citizenship voice behaviours are also predicted by satisfaction with teamwork, which may mean that workers that are more satisfied with their team
and colleagues may also be more willing to engage in the voluntary communication efforts directed at challenging the status quo of a work unit through the suggestion of creative and promotive solutions (Van Dyne & LePine 1998). This is definitely another form of engaging in reciprocity and expressing social exchange, with their colleagues and indirectly with their organization.

These findings are in tune with others, such as Kehoe and Wright (2013) whose findings reflect the importance of employees’ aggregated perceptions of HR practices as they are employed throughout a job group above and beyond the individual-level mechanisms through which HR practices may affect individuals’ outcomes, including organizational citizenship behaviours.

Hypothesis 2.c2 was confirmed. Consistent with Organ (1990), individuals engage in OCB as a form of reciprocity based on organizational treatment and also consistent with Morrison (1994), individuals enlarge their job responsibilities by incorporating those behaviours into their job. Engaging in helping and voice behaviours might also leave workers feeling that they are doing something beyond themselves and increase their self-esteem which can influence their performance and especially their self-efficacy.

Hypothesis 2.c3 was confirmed. Workers that are more satisfied with the HRIM also have a higher PROSE, but this relationship is mediated by the OCB’s. That is to say that workers OCB offers them a higher sense of accomplishment that also translates to higher PROSE.

Concerning voice behaviours, this finding is consistent in the sense that it has been reported that Whistle-blowers are more likely to be highly educated, show good job performance and hold higher-level positions (Miceli & Near, 1988). Potential costs associated with voice include the potential to initiate interpersonal conflict, the fear of negative feedback, and the risk of being perceived as a troublemaker (LePine & Van Dyne 1998).

Helping behaviours, more consistently associated with civic virtue OCB seem to play also a role in mediating SHRIM and PROSE, which was equally expected.
According to research reports, perceptions of organisational climate tend to influence interactions among workers, shape their affective responses to the work environment, affect their levels of motivation and impact their skill training activities (Gyekye, 2005).

When workers are happiest with the way they are treated by the organization, they will be most willing to go beyond their job obligations and to help others as well as feel confident that they can voice their opinions and challenge the status quo. In the health care sector, Organizational citizenship behaviour also plays an important part by allowing workers the discretion to respond to the needs of patients, particularly needs which are outside the conventional scope of an employee’s work (Organ, Podsakoff, & MacKenzie, 2006).

8.5. Hypotheses concerning the mediation of the WOR between the SHRIM-PROSE relationship

Hypothesis 3 was confirmed. As noted above, employees’ attitudinal and behavioural responses to an HR system depend on the HR practices that employees perceive to exist.
in their work context (Bowen & Ostroff, 2004); our work shows that there is a mediator effect of the worker-organization relationship between the afore mentioned components

The psychological contract literature suggests that employees may reciprocate employer treatment through a cognitive dimension; that is, adjusting their obligations to their employer (Coyle-Shapiro & Kessler, 2002). Recent empirical evidence also suggests that employees reciprocate perceived organizational support by enhancing their felt obligation to care about the organization’s welfare and to help the organization achieve its objectives (Eisenberger et al., 2001).

It appears that perceptions of procedural and interactional justice are important to the development of a relationship based on mutual commitment. Therefore, organizations need to effectively manage their treatment of employees at the level of formal procedures as well as how managers interact with employees at the interpersonal level. To the extent organizations can manage their relationship with employees, they are more likely to engage in OCB regardless of whether they categorise those behaviours as in-role or extra-role (Coyle-Shapiro et al., 2011).

The abilities, motivation and opportunity (AMO) theory is regarded to be the heart of strategic HRM in the sense that organizations seeking to improve performance should develop HRM policies in the domains of resourcing, development, compensation and incentives, involvement and job design that are expected to positively shape discretionary behaviour (Boxall & Purcell, 2003; Lepak et al., 2006). HRM outcomes such as employee skills, attitudes and behaviours mediate HRM policies and discretionary behaviour (Purcell et al., 2003).

We furthered our final hypotheses by testing the mediation model excluding extrinsic job satisfaction and the continuance and normative organizational commitment, generally associated with more tangible aspects of the WOR. We found that most of this effect was due to intangible and affective-related aspects, from a self-determination theory framework (Deci & Ryan, 1985), our results confirm that variables that are more directly related with fulfilling the psychological needs for autonomy, competence, and relatedness tend to mediate more effectively the relationship between SHRIM and PROSE.

When we compared clinical and non clinical staff, the global model the mediated effect of the WOR on the relationship between SHRIM and PROSE was stronger on non clin-
ical rather than clinical staff; however, the portion of this mediation that was explained by intangible variables was higher in clinical staff (0.18 in 0.30 is 60%) than in non clinical staff (0.22 in 0.40 is 48.89%). This is coherent with the scarce literature we could find on the difference between clinical vs. non-clinical staff in hospitals.

Thus it seems that the profile of non clinical workers is more similar to the profile of workers in other areas than the clinical workers; this means that clinical workers will be more sensible to HRIM measures that promote intrinsic satisfaction such as decentralization, participatory mechanisms, team-based structures (West et al., 2006; Buchan, 2004) and even autonomy and employee participation seem to affect change and innovation involvement of clinical staff (Patterson et al., 2005). Studies done with clinical workers (mostly doctors and nurses) are known for confirming the notion that these workers bear a stronger commitment to their patients and their careers rather than their organization (Takeuchi & Takeuchi, 2013; O’Donohue & Nelson, 2007), which might indicate that although the impact of Satisfaction with HRIM on Prose mediated by the WOR is significant (0.22), there might be other variables in these specific workers that can be considered, such as the working conditions regarding the time and resources to actually provide care and the opportunities for their professional development and learning (Janus et al, 2007).

These findings are also coherent with what workers consider to be ethical behaviour in healthcare, thus adding to the importance of the way institutions treat their patients in the way their clinical staff relates with the organization itself (Schwepker, 2001; Valentine & Barnett, 2003 Schwepker, 2001; Valentine & Barnett, 2003).

The scarcity of literature in the matter of clinical vs. non clinical staff reinforces the idea that there is a gap in the literature when considering hospital staff as whole and in a more holistic view of HRM in Hospitals to accompany the more holistic philosophy of Healthcare that has slowly but steadily been replacing the biomedical model of healthcare (e.g. Engel, 1977; Erlich, Kendall, Frey, Denton & Kisely, 2015).

**Conclusion**

From a theoretical perspective, our findings represent a departure from most existing
HRM research in this vein. Specifically, empirical work in this area has tended to treat the employee outcomes of HR practices as employees’ responses to consistently implemented, predetermined management techniques (for an exception, see Liao, Toya, Lepak, & Hong, 2009). However, the current findings suggest that employees’ perceptions of and reactions to HR practices may in fact be influenced by their perceptions and feeling concerning such practices, and that these have a reflection on employees’ performance related self-efficacy. Our results are consistent with the existing literature on psychological contract, social exchange theory and reciprocity theory frameworks, which strengthen the importance of the way organizations treat their workers, not only from an intrinsic value and ethical point of view, but also as a way to promote their own success.

Further, our results showed some nuances of the effect of SHRIM in the WOR and PROSE that can be specific to healthcare workers and might shed some light concerning the best HRIM strategies in this setting.
Chapter 9 - Conclusions

“One reason why we rush so quickly to the vulgar satisfaction of judgement, and love to revel in our righteous outrage, is that it spares us from the impotent pain of empathy, and the harder, messier work of understanding.”
– Tim Kreider, “We learn nothing”.
Chapter 9 – Conclusions

This study proposed to tackle some of the literature’s trends and concerns regarding HRM research in the healthcare sector. Our conceptual approach used a single hospital, as to avoid variances that may derive from organizational culture, management model, policies and case mix, in accordance to recommendations found in the literature (e.g., Nishii & Wright, 2008; Veld et al., 2010).

Thus the question of how HRM impacts performance was approached from an individualistic and proximal perspective. In this context, we considered that worker’s perceptions have been more directly associated with HR outcomes than the HRM practices themselves (e.g., Boselie & van der Wiele, 2002; Bowen & Ostroff, 2004; Chang, 2005; Wright & Nishii, 2004; Nishii et al., 2008) and we used the terminology HRIM to reduce ambiguity between different ways of perceiving HRM, and make a clear statement that a more encompassing rather than more “technical” approach was intended, including traditional and strategic HRM as well as issues that concern people from a not so “macro” level (teamwork, communication across the organization, etc.). Also, performance related self-efficacy was used as a proxy for individual performance. Individual performance has an especially significant contribution to organizational performance in the healthcare context (Boxall & Macky, 2009; Vermeeren et al., 2014) and is more or less unanimously considered a consequent of self-efficacy (Bandura, 2006; Locke et al., 1984; Mento et al., 1980). Since it is now increasingly recognized that the actual effectiveness of firms’ human resource policies and practices should be evaluated from employees’ behavioural and psychological outcomes (Lam et al., 2009; Park et al., 2003), and considering the Thomas Theorem (if people define situations as real, they are real in their consequences) (Merton, 1995) we also took that perspective.

We analysed this relationship in the framework of the social exchange theory and reciprocity theory, considering a mediation effect of the worker-organization relationship expressed by a composite measure of job satisfaction, organizational commitment and organizational citizenship behaviour. Although the relevance of these psychological variables has been widely recognized, the role of HRM practices in these mediating mechanisms has been underexplored (Treblay, Cloutier, Simard, Chênevert, & Vandenberge, 2010). According to these theories, expressions of positive affect and con-
cern for others create a feeling of indebtedness and a corresponding sense of obligation to respond positively in return. Workers who are satisfied with HRIM will then perceive a higher level of organisational concern health care and support, because HR practices provide employees with concrete evidence of the organisation’s intent to anticipate and meet their needs (Armstrong-Stassen & Schlosser, 2010). Satisfaction with HRIM creates a sense of indebtedness and a need to reciprocate in terms that will benefit their organisations/management (cf. Kehoe & Wright, 2013).

Health professions have been growing in number in most western countries during the last few decades (Lega & DePietro, 2005). It may be argued that due to this growth in number and importance of healthcare, there has never been a greater need to introduce effective strategies for HRM in the sector for individual clinicians and other workers to transform quality and productivity in healthcare and hospitals (Treble et al., 2014).

Results in this study support our theoretical model, and all the proposed hypotheses were partly or totally supported. These conclusions are in line with Liua, Martineaub, Chenc, Zhana, and Tang’s (2006) work, that assuming HRM policies and practices are aligned with appropriate health service objectives, improved HRM and leads to improved health outcomes. Furthermore the results are in line with Xerri and Brunetto’s (2013) conclusion that, if healthcare managers want to promote commitment, then the first step is to embed effective workplace relationships, namely the worker-organization relationship, even if the impact of SHRIM is stronger in non clinical than in clinical staff.

We furthered our hypotheses by testing the mediation effect of the emotional worker organization relationship (comprised of the less tangible and more affective elements in the constructs that comprise the WOR) between SHRIM and PROSE. Results show that the more affective portion of the indicators has a stronger mediation effect than the more “bottom-line” constructs (namely, extrinsic satisfaction and continuance organizational commitment). The EWOR seems to have a stronger impact in the clinical workers than in the non-clinical workers, and meets perfectly what the literature has been suggesting regarding the surmounting importance of non-monetary factors in different types of clinical workers (doctors, nurses, etc.) (e.g., Rafferty et al, 2001; Rosenstein, 2002; Janus et al, 2007), supporting the notion that HRIM in hospitals must go beyond the bottom line issues when trying to retain/motivate their clinical workers.
9.1 Contributions / Implications to Practice

Studying HRM in the health care sector and its effect on performance has both practical and academic relevance (Kabene et al., 2006). There are obviously many more groups in addition to physicians, nurses and administrators (the three groups on which the preponderance of studies of HRM in healthcare is focused [Bartunek, 2011]) whose collaboration is necessary for successful healthcare delivery. These include, among others, dieticians, multiple types of therapists, pharmacists, laboratory technicians and so forth; this study included all the professional groups involved in the hospitalization experience and thus directly and indirectly contributing to healthcare and quality of life in patients (for instance, the importance of intergroup collaboration in the service of quality improvement in healthcare has been amply advocated by authors like Bartunek [2011]).

To date, the bulk of research on SET has been based on North American samples, with little understanding whether the theory transcends cultural contexts in its ability to explain and effectively predict. Thus, in order to expand our knowledge in this area, we examined SET in a Portuguese sample. Our results confirmed the applicability of SET in a Portuguese context and make a contribution to the literature by extending empirical research on SET and its applications in a non-U.S. environment.

Our work emphasizes the importance of developing supportive relationships in the workplace in a HRIM level, through providing favourable discretionary treatment, realistic promise making and minimising occurrence of contract breach and violation (increasing fulfilment). A possible implication of this finding is that in the Portuguese context, HRM practices need to be implemented in such a way as to increase employees’ perceptions of fitting into their organizations, which eventually leads to the enhancement of their AOC as well as of their retention and job quality improvements.

Complementary research findings along this line of argument in both social psychology (e.g., Van Maanen & Schein, 1979) and the organisational literature (Kelley & Hoffman, 1997) have confirmed that one type of prosocial behaviour facilitates other types of prosocial behaviours due to the personal values acquired through the socialisation process. Thus relative to their dissatisfied colleagues, satisfied workers are more likely to promote a good work environment and follow rules as complying with safety-related practices (Gyekie, 2005). In fact, it is also possible that employees dissatisfied with their job and not committed with the organization, achieve poor performance and fur-
thermore, they tend to carry out withdrawal behaviours and are also the ones more likely to experience job insecurity and to react more negatively to it (Hartley et al., 1991).

From a practical standpoint, our findings point to the need for organizations to move beyond a simple focus on the effective design or selection of an HR system/best practices, to include an emphasis on consistent implementation of and communication about HR practices or others. Further, our findings bring about the importance of a good relationship with the organization and conceptualized to include co-workers (e.g. the OCB scale focuses mainly on the relationship between workers and co-workers) and supervisors (e.g. different items in the JS, OC and OCB scale refer specifically to supervisor/leaders), brings us also to the importance of a good relationship between the workers and their leaders, especially in the context of reciprocity and social exchange theory.

Further, it seems clear that SHRIM is connected to PROSE, and studies show that higher self efficacy is associated with a greater sense of success and well being (e.g. Bandura, 2006, Leng, 2013). Although there is little research on the impact of HRIM on the health and wellbeing of workers, results have been showing that positive experience of work relationships leads to lowered blood pressure and heart rate, strengthened immune system and healthier cortisol levels (Heaphy & Dutton, 2008) which mitigate damaging health consequences of organizational responses to turbulence (e.g., an economic crisis) with health enhancing social support and positive interactions at work.

With increasing competition, the conventional HRM that is practiced by almost every organization no longer provides a competitive advantage. HR departments need to design their activities strategically to help achieve organizational goals. In other words, with strategic HRM becoming an integral part of the HRM system, it is no longer enough for a company to focus solely on traditional technical HRM (Yang & Lin, 2014). In our study, we go beyond the context of technical/traditional HRM and SHRIM and introduce the concept of HRIM, which is closer to the idea of People Management than Human Resource. This broader scope permits a more humancentric approach of management, or including issues that despite being recognized as crucial for organizations (e.g. teamwork) are often overlooked by the HRM department.

In the healthcare context, these results can have an impact not only in in-role and extra-role performance, but also in worker retention. Kovner et al. (2007) report that up to
13% of new nurses consider leaving their jobs within one year and indeed, most nurse turnover models assign an important role to job satisfaction and organizational commitment (Hayes et al., 2006). Moreover, this finding generalizes to employees other than nurses as well (Griffeth et al., 2000; Tett & Meyer, 1993).

Considering the fact that not only the WOR has a significant mediation impact on the relationship between HRIM and PROSE, but the emotional WOR has the most significant part of this mediation power, our findings are in agreement with Janus and colleagues’ (2007) suggestion that the political discussion around salary increases for physicians should be broadened – or even shifted – to include a strategic redesign of non-monetary factors contributing to physician job satisfaction, and we propose that this shift is applicable to healthcare workers in general, especially clinical workers.

Our research suggests that a special focus should be given to ward managers, workers who are often the “face of the organization” to their co-workers, but who are non the less not in the centre of the decision making process. We suggest that actions to empower these workers and make them feel a part of the decision process should be undertaken, as to ensure that the way they feel and communicate organizational decisions and policies be as positive as possible, in order to elicit positive reciprocity from the remaining colleagues, especially the ones they lead. Ironically, despite a rather bleak picture of the role of ward managers, these managers are a highly committed and dedicated group of professionals whose loyalty to the patient and their team has remained resolute (Takeuchi & Takeuchi, 2013). Research by several authors (e.g. Hutchinson & Purcell, 2010; Takeuchi & Takeuchi, 2013) reveals that workers’ commitment to the organization, while quite high, is lower than the commitment to their team, their profession and to patient care. The danger is that if healthcare front-line managers continue to have such heavy workloads and contradictory expectations (focus on performance and “numbers” vs. focus on people and team relationships) placed upon them, organisational commitment may start to erode, and looking after their own “patch” is the best they can be expected to achieve.

HR practices and higher-level performance outcomes have been supported by previous research, pointing to its established importance for an effective and strategic HRM approach (Kehoe & Wright, 2013).
9.2. Limitations and future research

“The very notion of limits presupposes something beyond them”
– Nabokov, “Lolita”

“Whatever the problem, be part of the solution. Don’t just sit around raising questions and pointing out obstacles.”
– Tina Fey, “Bossypants”

As with most research, the results of this study should be interpreted with consideration of several limitations.

Firstly, the study was conducted at a single organization, which limits the generalizability of its results. The cross-sectional nature of the study does not allow for any conclusions regarding causal relationships. Although the analyses show that our proposed relationships exist within the cross-sectional data set, we are not able to claim a causal relationship from these results.

Cross-sectional research is a cost-effective starting point for establishing that two or more variables are related, and the absence of a cross-sectional relationship would send warning signals that more costly longitudinal work might not be justified (Wall & Wood, 2005). Also, cross-sectional work often allows the use of much larger samples and hence augments generalizability. However, for reasons that are well known, cross-sectional studies provide a weak foundation for causal inference, for which longitudinal research designs are to be preferred (Wall & Wood, 2005). Future research would benefit from testing the present study’s model within a longitudinal design.

Self-reported measures have been commonly and successfully used in an extensive body of research in organisational behaviour and HRM (e.g., Gyekye, 2005); in this work, all variables were assessed via self-report. This raises the concern for common method bias and common variance (independent, mediating and dependent variables were measured simultaneously). Measures have been taken to reduce this concern. For example, respondents were informed that participation is voluntary and fully anonymous (Wikhamn & Hall, 2012). Further, the Harman single-factor test was conducted in all the multiple factor scales to eschew this suspect successfully.

Regardless of the common method bias, researchers in the area of organizational behav-
have found epidemiologic reports to be faulty, biased and deficient because of poor documentation (Parker, Carl, French, & Martin, 1994; Veazie, Landen, Bender, & Amandus, 1994); however, research reports in different areas have found a direct correspondence between self reported and objective measures (e.g., Gyekye, 2005). Although most studies utilize manager rating of OCBs, the self-reported measures sometimes used to assess sales-related performance and have been consistent with managers’ evaluations (Organ 1988). In fact, several behaviours could be known only to individuals (Allen, Barnard, Rush, & Russell 2000), whereas supervisors may be aware of only a portion of these behaviours (Moorman 1991). Allen et al. (2000) found a relatively high correlation between employees’ and supervisors’ evaluations. Although OCB self-rating may inflate relationships, this problem has not been as serious as some have suggested (Organ & Ryan, 1995). There is substantial evidence that the relationship between employee attitudes and OCB is not a function of common-method variance (Organ & Ryan 1995).

One must consider, however, that several authors have pointed out the problematic issue of measuring performance through self-report questionnaires (Sverke, Hellgren, & Naswall, 2002), since there is empirical evidence that individuals tend to overrate their performance and that ratings (Ford & Noe, 1987). Therefore, it must be underlined that the promising results obtained in this study should be replicated in future research employing multiple measures of job performance, distinct from self report ratings, following the methodology proposed by Chirumbolo and Areni (2005).

This study relied on employee self-reports of employee outcomes; although it is defensible that more accurate reports of performance might have been obtained through departmental records or managers, the fact remains that we were unable to obtain departmental or managerial reports for those professionals who had performance appraisal systems. Further, the vast majority of our sample is comprised of professionals who, at the time we collected data, did not have objective performance indicators, and had widely different performance appraisal systems; for example, when this study was conducted, doctors did not have a performance appraisal system at all.

Finally, one may argue that our sample is from the public sector and this setting may be unique enough to limit the external validity of the findings. However, we would argue that the norm of reciprocity might produce stronger effects in other contexts as public
sector employees may be constrained from adopting a stronger reciprocity norm. One such constraint may be employees’ commitment to the public service and what employees contribute or decide not to contribute may have direct implications for the delivery of service to public users (Coyle-Shapiro & Kessler, 2002).

FUTURE RESEARCH

The results of our study indicate that employees’ perceptions about the management of their Hospital likely affect individual-level attitudinal and behavioural outcomes, thereby suggesting that to maximize the positive effects of an HR system, managers should employ HR practices consistently across a job group and ensure that all employees are aware of the practices in use (Kehoe & Wright, 2013).

Current findings suggest that employees’ perceptions of and reactions to HR practices may in fact be influenced by their perceptions and apparent experiences of their coworkers as well—thereby pointing to a need for scholars to focus on employees’ aggregate perceptions of HR practice use throughout a job group or department. It can be interesting to understand if there is a nesting effect and use a hierarchical modelling approach to this question, where the group might have some influence on the way each employee perceives the HRIM, beyond what managers are communicating. Consequently, whereas a reader of traditional SHRM research might conclude that effective HR policy is essential in eliciting desired aggregate outcomes, the current findings suggest that a group of employees’ individual outcomes are likely affected by the way that the individuals in the group perceive the group to be managed as a whole.

The use of a multilevel approach with consideration of relationships at the job group and individual levels can also be a direction for future research. Specifically, by considering HR practice perceptions at the job group level, authors may capture important variance in this variable based on a relevant organizational boundary that acknowledges the contextual influences affecting the formation of perceptions at the individual level. Furthermore, by considering proximal outcomes of employees’ aggregate HR perceptions, authors may be able to demonstrate if although individuals develop their own exchange relationships with an organization, choosing and enacting their work behaviours accordingly, they develop these relationships and enact these behaviours in the presence
of co-workers with whom they are likely to share frequent experiences and interactions. Kehoe and Wright (2013) have found that although individuals’ differences in affective commitment significantly predicted their behavioural outcomes, the job group mean of affective commitment fully mediated the relationship between aggregate HR perceptions and both individual organizational citizenship behaviour and intent to remain with the organization, even after accounting for these effects—thus demonstrating the importance of identifying and accounting for the appropriate contextual effects in the study of HR practices and outcomes. Future research should consider these findings and build on the idea that organizations are complex synergetic systems where interaction is fundamental.

The medical team is altogether more individualistic, as compared to the nursing and other teams, which is due to the basic nature of medical versus nursing roles and assignments. Lai et al. (2013), who studied the team cultural perspective in relation to organizational citizenship behaviour in work groups, found that team collectivism and individualism were found to moderate the OCB–performance rating relationship. It is therefore speculated here that doctors, whose work is individualistic by nature, may basically function within a non-supportive team of doctors, but will experience, in this case and according to the research results, low satisfaction with their jobs. High cooperation with the nursing team is hereby shown to inspire a supportive, friendly and cooperative working relationship among the team of doctors; and that, in turn, is shown to influence their feelings of greater job satisfaction (Shetach & Marcus, 2012). Bearing these findings in mind, it could be interesting to see if an intervention designed to promote a higher interaction of doctors and other types of hospital workers – a true focus on the multidisciplinary model might produce the same effects.

According to Aselage and Eisenberger (2003), the exchange, or reciprocation, in social relationships becomes stronger when both partners are willing to provide resources valuable to the other. Whereas employees value beneficial treatment, employers seek loyalty and dedication (Coyle-Shapiro & Shore, 2007; Eisenberger et al., 2001). But which of the two parties starts first? Research discusses mostly organizations as initiators: positive actions directed at employees by the organization are argued to contribute to the establishment of high-quality exchange relationships (Eisenberger et al., 2001). Empirical evidence supports this sequential order of reciprocation and most notably, these ex-
changes have been used to explain the positive consequences that ensue when employees respond to perceived organizational support (for a review, see Rhoades & Eisenberger, 2002; Wikhamm & Hall, 2012). But is this accurate? It would be interesting to understand exactly how does the reciprocity chain reaction get initiated and what factors – of any – contribute to the initialization by workers in this relationship.

Perceived employer obligations define the parameters of the relationship and signal to the employee the potential inducements that may be exchanged over the course of the relationship. As such, perceived promises signal the organization’s future intent and their willingness to invest in the relationship. However, the realization of these obligations is not unconditional but rather predicated on employees’ fulfilling their side of the exchange. The nature of some obligations may be ongoing during the relationship and temporarily discharged periodically as the relationship progresses. For example, an obligation to keep skills up to date may be temporarily fulfilled when an individual is given additional training but the obligation to continue to update skills in the future may exist. In addition, the nature of the exchange involves the contingent interplay between the individual and his/her employer. Therefore, an individual’s behaviour should be influenced by the anticipation of fulfilled promises, as the ‘actual’ fulfilment of those promises is contingent upon the employee’s contributions (Coyle-Shapiro, 2002).

Such a reciprocation process is highly dependent upon the perceptions of each part and each part’s sense of indebtedness, and can therefore not necessarily be balanced: it is possible that the leader may trust the worker, and the worker does not trust the employee (e.g., Brower, Schoorman, & Tan, 2000; Mayer, David, & Schoorman, 1995), or even if the leader trusts the worker in a reciprocal manner, this does not mean that both trusts have the same level (Cardona & Eola, 2003). The circumstances and consequences of this (in)balance should be a valuable source of information for research and practice in organizations.

Research shows that trust partially mediates the effects of the fulfilment of both components of the psychological contract on employees’ affective commitment (El Akremi, Coyle-Shapiro, & El Bedoui, 2011), future research should consider this variable in the WOR.

The consideration of emotions is rare as is the impact of WOR on employee health
A high-performance HR–organizational citizenship behaviour linkage is likely better explained indirectly, through the impact of high-performance HR practices on employees’ affective commitment predicted by social exchange theory (Kehoe & Wright, 2013). Specifically, as Scholl (1981) suggested, commitment serves to maintain behavioural direction in the absence of rewards. Thus, employees who are committed to the organization are likely to be eager to contribute to the organization’s goals and are more likely than others to extend their efforts beyond their required task performance to further the effectiveness of the organization, even if they do not expect to be directly rewarded for this behaviour on the basis of formal HR practices. Organizational citizenship behaviours provide a straightforward means for committed employees to make such optional contributions to the firm. For these reasons—in addition to support from previous research demonstrating a positive relationship between affective commitment and organizational citizenship behaviour (for a review, see Podsakoff et al., 2000), it could be interesting to realize if there is a causality relationship between these two variables and if these in turn have an effect on organizational performance in healthcare.

The issue of organizational performance in healthcare is something we believe could also be an interesting one to tackle. Namely we believe a longitudinal study should be conducted where different indicators of hospital performance (self-efficacy, patient satisfaction, numeric performance indicators) are collected and related so that it becomes clear how they relate to each other, which is useful for managers, because it allows for better decisions when enhancing performance, but also for researchers, because it broadens the type of conclusions and inferences one can make from research in this field.

Huang et al. (2012) suggest, on the basis of their findings, that hospitals can increase organizational citizenship behaviours by influencing an organization’s ethical climate, job satisfaction, and organizational commitment. They focus on the "climate types" of caring, law and code and rules climate, satisfaction with co-workers, and affective
commitment and normative commitment. These authors argue that caring, law/code and rules climate (e.g. how much an organization will keep their promises, or in other words, keep their end of the bargain in the social exchange, maintaining the rules of reciprocity) increase organizational citizenship behaviour, while preventing organizations from developing the type of instrumental climate and continuance commitment that decreases it (Shetach & Marcus, 2015). Blau (1964) viewed ideological rewards as effective inducements because “helping to advance cherished ideals is intrinsically rewarding” (p.239) and Thompson & Bunderson (2003) ideological currency as “credible commitments to pursue a valued cause or principle (not limited to self interest) that are implicitly exchanged at the nexus of the individual-organization relationship” (p.576).

Given the extensive literature we were to discover after our data collection with regards to ethical behaviour in the organization and the way this directly connects to reciprocity and SET in the WOR, we suggest that future research tries to find if the perception of ethical behaviour and ethical policies in itself actually have an impact on the different aspects of the WOR and if consequently they affect any aspect of performance (organizational, individual, worker self-efficacy, etc.).

Regardless, some authors such as Gardner, Moynihan, Park, and Wright (2001) and Purcell and Hutchinson (2007) argue that in the HRM–performance causal chain, it is not just HRM outcomes that affect organizational performance, but there may exist a serial causation from employee skills, to attitudes and then to behaviour that finally affect individual performance and organizational performance at large.

This might mean that decentralisation can give health service managers more control over managing their staff. In some cases this may lead to improved HR outcomes and ultimately better health service provision. However, this is not always the case and in fact decentralisation may actually lead to worse health service provision through the inappropriate use of HRM actions (Liu et al., 2006). Research on the impact of decentralization on the WOR would be a valuable asset for future research.

We did not empirically examine the antecedents of variability in employees’ perceptions of HR practices. Although we emphasize the likely importance of consistent and effective HR practice implementation in shaping employees’ HR practice perceptions, empirical work is needed examining the relative significance of potential antecedents.
Conclusion

Employee satisfaction remains a major concern in business today (Boichuck & Menguk, 2013); in this work, we demonstrated the importance of employees’ satisfaction with the HR practices used to manage their people in predicting attitudinal and behavioural outcomes—an oversight in the majority of previous research. Second, we shed light on the relationships between attitudinal and behavioural outcomes — a set of relationships that previous work in this area had left vague or unspecified (Kehoe & Wright, 2003). Third, we presented findings that suggest a variety of fruitful areas for future research in the field of HRM in the healthcare sector. We are hopeful that future research in this area will acknowledge and attempt to inform the gaps between organizations’ HR policies and employees’ HR practice experiences and perceptions; employees cannot wilfully respond to practices they do not perceive.

In general, the pattern was that better staff experiences are associated with better outcomes for employees and probably patients, which is consistent with previous findings (e.g. Trebble, Heyworth, Clarke, Powell, & Hockey, 2014). These outcomes represent employee attitudes and behaviours that are likely to affect performance across a variety of organizational settings; that is, high levels of employee satisfaction with HRIM affects the way workers relate to the organization, which in turn affects their performance related self-efficacy, a variable strongly associated with performance, which is likely to benefit performance outcomes across industries, business strategies, and cultures—all of which points to the generalizability of these outcomes in terms of importance and relevance across many contexts, especially in the services industry where the human factor is paramount.
References

“The world is a book and those who do not travel read only one page.”

- Saint Augustine of Hippo, “Confessions”
References


Hsu, M. H., Ju, T. L., Yen, C.-H., & Chang, C.-M. (2007). Knowledge sharing behavior in vir-


Wilde, J. (2014), Building cultures of openness and transparency. Occupational Psychology in Public Policy, BPS. End


Appendix

- Additional statistical information
A1. Psychometric Properties of the WOR

Table A1.1 - Goodness of fit indices obtained in the confirmatory factor analysis of the WOR composite measure

<table>
<thead>
<tr>
<th></th>
<th>$\chi^2$</th>
<th>df.</th>
<th>$\chi^2$/df</th>
<th>GFI</th>
<th>CFI</th>
<th>RMSEA</th>
<th>Confidence interval (90%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WOR structure</td>
<td>6740.97**</td>
<td>1281</td>
<td>5.26</td>
<td>.86</td>
<td>.88</td>
<td>.04</td>
<td>.038-.040</td>
</tr>
</tbody>
</table>

** p < .01

Figure A.1 - Confirmatory Factor Analysis of the WOR model.

Table A1.2 – Average Variance Extracted and Composite Reliability for the WOR

<table>
<thead>
<tr>
<th>Scale</th>
<th>CR</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>WOR</td>
<td>0.82</td>
<td>0.66</td>
</tr>
</tbody>
</table>
# A2. Psychometric Properties of the EWOR

**Table A2.1 - Goodness of fit indices obtained in the confirmatory factor analysis of the EWOR composite measure**

<table>
<thead>
<tr>
<th></th>
<th>$\chi^2$</th>
<th>df.</th>
<th>$\chi^2$/df</th>
<th>GFI</th>
<th>CFI</th>
<th>RMSEA</th>
<th>Confidence interval (90%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EWOR structure</td>
<td>4428.83</td>
<td>741</td>
<td>5.98</td>
<td>.88</td>
<td>.90</td>
<td>.042</td>
<td>.041-.043</td>
</tr>
</tbody>
</table>

**p < .01**

![Figure A.1 - Confirmatory Factor Analysis of the EWOR model.](image)

**Table A2.2 – Average Variance Extracted and Composite Reliability for the WOR**

<table>
<thead>
<tr>
<th>Scale</th>
<th>CR</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>EWOR</td>
<td>0.82</td>
<td>0.50</td>
</tr>
</tbody>
</table>
Annex
- Questionnaire
O presente questionário insere-se num estudo sobre o impacto a relação dos colaboradores com a organização e pretende compreender de que forma a percepção das práticas de gestão influencia a relação dos colaboradores com a organização, bem como o seu impacto no desempenho organizacional.

Este Estudo está a ser desenvolvido no âmbito de uma tese de Doutoramento na Faculdade de Economia da Universidade do Porto.

Todas as respostas que lhe solicitamos são rigorosamente anónimas e confidenciais. Leia com atenção as instruções que lhe são dadas, certificando-se de que compreendeu corretamente o modo como deverá responder. Responda sempre de acordo com aquilo que faz, sente ou pensa, pois não existem respostas corretas ou incorretas, nem boas ou más respostas.

Muito obrigado pela sua colaboração!
### Caracterização da amostra

<table>
<thead>
<tr>
<th>Idade (anos)</th>
<th>Género (sexo)</th>
<th>Antiguidade no IPO</th>
<th>Localidade onde vive</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>F</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grau de Escolaridade</th>
<th>Tipo de Contrato</th>
<th>Carreira</th>
<th>Função</th>
<th>Exerce funções de chefia?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Até à 4.ª classe</td>
<td>Efectivo (sem termo)</td>
<td></td>
<td></td>
<td>Não</td>
</tr>
<tr>
<td>Até ao 6.º ano</td>
<td>Termo Certo</td>
<td></td>
<td></td>
<td>Não</td>
</tr>
<tr>
<td>Até ao 9.º ano</td>
<td>Termo Incerto</td>
<td></td>
<td></td>
<td>Sim</td>
</tr>
<tr>
<td>Até ao 12.º ano</td>
<td>Prestação de Serviços (Recibos Verdes)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Licenciatura</td>
<td>Trabalho Temporário</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Qual?</td>
<td>Outro</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Serviço(s) em que trabalha

Responda às seguintes questões, indicando a sua opinião de 1 (discordo completamente) a 5 (concordo completamente):

1. Na minha opinião, contribuo para o sucesso do IPO.  
2. Eu considero estar a ter um bom desempenho no IPO.  
3. Eu penso que sou um bom colaborador.  
4. Em média, sinto que trabalho mais que os meus colegas.  
5. Sinto que tenho condições para dar o melhor de mim a esta organização.
Responda às seguintes questões, indicando a sua opinião de 1 (muito insatisfeito) a 5 (muito satisfeito):

1 - Muito Insatisfeito  2 -Insatisfeito  3 -Não consigo decidir se estou satisfeito ou insatisfeito  4 - Satisfeito  5 - Muito satisfeito

1. A forma como as pessoas são escolhidas para trabalhar no Hospital.

2. A forma como as pessoas são escolhidas para trabalhar neste Serviço.

3. A forma como eu fui escolhido/a para trabalhar neste Hospital.

4. A qualidade e temáticas das formações que o Hospital me propicia.

5. A quantidade de formações que o Hospital me propicia.

6. A forma como decorreu o meu processo de avaliação de desempenho (SIADAP ou outro).

7. A forma como em geral decorre o processo de avaliação de desempenho (SIADAP ou outro).

8. Os resultados do meu processo de avaliação de desempenho (SIADAP ou outro).

9. Os resultados do processo de avaliação de desempenho em geral (SIADAP ou outro).

10. A forma como a informação genérica relativa ao Hospital é transmitida aos colaboradores pelas chefias.

11. A forma como a informação que me afeta profissionalmente/diretamente me é transmitida pelas chefias.

12. A forma como a informação relativa ao Hospital círcula entre colegas.

13. A forma como a informação relativa ao Serviço círcula entre colegas.

14. A forma como a informação que me afeta diretamente círcula entre colegas/no Hospital/na minha categoria profissional.

15. A forma como a minha equipa funciona.

16. A forma como as equipes em geral funcionam no Hospital.

17. A forma como funciona(m) a(s) equipa(s) que eu integro.

18. A forma como os diferentes Serviços colaboram uns com os outros.

19. A forma como a informação em geral é partilhada entre os diferentes Serviços.

20. A forma como a informação sobre os pacientes é partilhada entre os diferentes Serviços.

21. O conjunto de remuneração, compensações e benefícios que me é atribuído.

22. O conjunto de remuneração, compensações e benefícios que este Hospital em geral oferece.

23. O regime de compensações e benefícios (CAP ou CIT) em que me encontro inserido/a.

Responda às seguintes questões, indicando a sua opinião de 1 (muito insatisfeito/a com este aspeto do meu trabalho) a 5 (muito satisfeito/a com este aspeto do meu trabalho):

<table>
<thead>
<tr>
<th>Número</th>
<th>Descrição</th>
<th>Opinião</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A forma como o meu trabalho me permite estar ocupado/a o tempo todo.</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>A sensação de realização pessoal que o meu trabalho me dá.</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>A oportunidade de fazer coisas pelos outros.</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>A oportunidade de trabalhar de forma autónoma na minha função.</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>A oportunidade de ser alguém na comunidade.</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>A forma como o meu chefe lida com os seus subordinados.</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>A competência do meu superior hierárquico em termos de tomada de decisão.</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>A forma como a minha função me permite ter um emprego seguro.</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>A forma como as políticas do Hospital são postas em prática.</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>A oportunidade de fazer coisas diferentes de tempos a tempos.</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>O reconhecimento que tenho por fazer um bom trabalho.</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>A oportunidade de dizer aos outros o que fazer.</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>A oportunidade de fazer algo que me permite utilizar as minhas capacidades.</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Poder fazer coisas que não vão contra a minha consciência.</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>A forma como os colegas se dão uns com os outros.</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>A liberdade para tomar algumas decisões.</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>As condições de trabalho.</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>A oportunidade de progressão neste trabalho.</td>
<td>1</td>
</tr>
<tr>
<td>19</td>
<td>A relação entre o pagamento e a quantidade de trabalho que faço.</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>A oportunidade de usar os meus próprios métodos para fazer o meu trabalho.</td>
<td></td>
</tr>
</tbody>
</table>
Responda às seguintes questões, indicando a sua opinião de 1 (discordo completamente) a 7 (concordo completamente):

1- Discordo Completamente
2-Discordo Bastante
3-Discordo Ligeiramente
4-Não Conordo nem Discordo
5-Concordo Ligeiramente
6-Concordo Bastante
7-Concordo Completamente

1. Este Hospital tem muito significado pessoal para mim. □ 1 2 3 4 5 6 7

2. Não tenho um grande sentimento de pertença para com este Hospital. □ 1 2 3 4 5 6 7

3. Gostaria muito de desenvolver o resto da minha carreira neste Hospital. □ 1 2 3 4 5 6 7

4. Mesmo sendo vantajoso para mim, não acho que fosse correcto deixar o meu Hospital agora. □ 1 2 3 4 5 6 7

5. Não deixaria o meu Hospital neste momento porque me sinto obrigado/a para com as pessoas que nele trabalham. □ 1 2 3 4 5 6 7

6. Sinto mesmo os problemas deste Hospital como meus. □ 1 2 3 4 5 6 7

7. Uma das poucas consequências negativas de deixar este Hospital seria a falta de alternativas disponíveis. □ 1 2 3 4 5 6 7

8. Uma das maiores razões para eu continuar a trabalhar neste Hospital é que sair iria requerer um sacrifício pessoal muito considerável (outro Hospital poderia não oferecer todos os benefícios que tenho aqui). □ 1 2 3 4 5 6 7

9. Não me sinto ligado/a emocionalmente a este Hospital. □ 1 2 3 4 5 6 7

10. Devo muito a este Hospital. □ 1 2 3 4 5 6 7

11. Este Hospital merece a minha lealdade. □ 1 2 3 4 5 6 7

12. Não sinto qualquer obrigação de permanecer com o meu empregador atual. □ 1 2 3 4 5 6 7

13. Seria muito difícil deixar este Hospital agora, mesmo se eu quisesse. □ 1 2 3 4 5 6 7

14. Sinto que tenho muito poucas opções para considerar sair deste Hospital. □ 1 2 3 4 5 6 7

15. Se já não tivesse dado tanto de mim a este Hospital, consideraria trabalhar noutra silto. □ 1 2 3 4 5 6 7

16. Não me sinto como fazendo "parte da família" neste Hospital. □ 1 2 3 4 5 6 7

17. Sentir-me-ia culpado/a se deixasse o meu Hospital agora. □ 1 2 3 4 5 6 7

18. Neste momento, permanecer no meu Hospital é uma questão tanto de necessidade, como de vontade. □ 1 2 3 4 5 6 7

19. Demasiadas coisas na minha vida seriam "abaladas" se eu decidisse sair do meu Hospital agora. □ 1 2 3 4 5 6 7
Responda às seguintes questões, indicando a sua opinião de 1 (discordo completamente) a 7 (concordo completamente):

1. Discordo Completamente
2. Discordo Bastante
3. Discordo Ligeiramente
4. Não Concorro nem Discordo
5. Concorro Ligeiramente
6. Concorro Bastante
7. Concorro Completamente

<table>
<thead>
<tr>
<th>Questão</th>
<th>Opinião</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ajudo a orientar novos empregados no meu grupo de trabalho.</td>
<td></td>
</tr>
<tr>
<td>2. Falo no meu grupo sobre ideias para novos projetos e mudanças nos procedimentos.</td>
<td></td>
</tr>
<tr>
<td>3. Ajudo outros no grupo a aprender sobre o trabalho.</td>
<td></td>
</tr>
<tr>
<td>4. Desempenho algumas funções para ajudar o grupo de trabalho.</td>
<td></td>
</tr>
<tr>
<td>5. Ajudo outros colegas do grupo no seu trabalho de forma a beneficiar todo o grupo.</td>
<td></td>
</tr>
<tr>
<td>6. Comunico as minhas opiniões acerca do trabalho a outras pessoas do grupo mesmo que as minhas opiniões sejam diferentes ou se discordarem de mim.</td>
<td></td>
</tr>
<tr>
<td>7. Falo e encorajo outros colegas a envolver-se em assuntos que dizem respeito a este grupo.</td>
<td></td>
</tr>
<tr>
<td>8. Ajudo outras pessoas no grupo nas suas responsabilidades no trabalho.</td>
<td></td>
</tr>
<tr>
<td>9. Envolvo-me para beneficiar o grupo de trabalho.</td>
<td></td>
</tr>
<tr>
<td>10. Ofereço-me para fazer coisas pelo meu grupo de trabalho.</td>
<td></td>
</tr>
<tr>
<td>11. Desenvolvo e faço recomendações sobre assuntos que dizem respeito ao meu grupo de trabalho.</td>
<td></td>
</tr>
<tr>
<td>12. Mantenho-me bem informado/a acerca de assuntos em que a minha opinião possa ser útil a este grupo de trabalho.</td>
<td></td>
</tr>
<tr>
<td>13. Envolvo-me em assuntos que dizem respeito à qualidade de vida deste grupo.</td>
<td></td>
</tr>
</tbody>
</table>
“If you have built castles in the air, your work need not be lost; that is where they should be. Now put the foundations under them.”

- Henry David Thoreau, “Walden”