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High Performance Work Systems in Greece: An  
Empirical Approach

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Πανεπιστήμιο Μακεδονίας

Σχολή Επιστημών Διοίκησης Επιχειρήσεων  
Τμήμα Οργάνωσης και Διοίκησης Επιχειρήσεων

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Συστήματα Διοίκησης Ανθρώπινου Δυναμικού Υψηλής  
Απόδοσης στην Ελλάδα: Μία Εμπειρική Προσέγγιση

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## Συστήματα Διοίκησης Ανθρώπινου Δυναμικού Υψηλής Απόδοσης στην Ελλάδα: Μία Εμπειρική Προσέγγιση

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## ABSTRACT

Over the past three decades, there has been a great deal of debate regarding the appropriate human resource (HR) practices that should be used in an organization in order to lead to higher corporate performance. The most common term characterizing such a relationship is known as High Performance Work Systems (HPWS). Although the initial interest among researchers and practitioners focused on the direct relationship between HPWS and firm-level performance outcomes, the years following the new millennium researchers highlighted the need to understand not only the ‘what’ and the ‘why’ of the impact of Human Resource Management (HRM), but also the ‘how’, which became known as the ‘black-box’. With regard to the latter issue, researchers focused on the key role of workers’ perceptions and behaviors, and suggested that HR practices designed to enhance employees’ abilities, motivation, and opportunities ‘transmit’ their impact on organizational outcomes. Hence, it soon became evident that organizational performance does not stem from the HR practices themselves, but rather from the positive impact that they have on employees’ attitudes and behaviors. However, and despite the considerable progress towards unlocking the ‘black-box’, research emphasizing the preexisting processes through which HPWS influences employee attitudes and role behaviors is still in need of further exploration.

Taking the preceding discussion into consideration, in the present thesis we shed light on the ‘transmission mechanism’ of HR practices on employee outcomes and organizational performance in the Greek context. Specifically, in the first part of the present thesis we focus on the Greek healthcare context and adopt several theoretical frameworks (e.g., the social and economic exchange theories, the social identity theory, and the psychological empowerment perspective) in investigating the actual mechanisms through which HPWS influences employee attitudes and behaviors. Empirical evidence was obtained from 297 clinicians

(doctors and nurses) using a structured questionnaire. The findings demonstrate first that the HPWS effects on employee outcomes can be influenced by their perceived nature of the exchange relationship with their employers, which in turn influences employees' work engagement and emotional exhaustion. Secondly, the findings provide evidence for the potential fruitfulness of the HPWS approach from a social identity perspective, and confirm that without the presence of psychological empowerment HPWS may have limited impact on the quality of patient care. Last but not least, the findings provide evidence for the positive contribution of the HPWS approach in improving employee outcomes and well-being, including increased job satisfaction, affective commitment and work engagement, and lower intention to leave.

In the second part of the present thesis we adopt the 'trust' theory and focus on the Greek banking sector. In particular, we examine the effects of employees' perceptions of HPWS on their trust towards their managers, as well as on service quality, through the mediating role of employee outcomes, measured by job satisfaction and affective commitment. Empirical evidence was obtained from 350 front-line employees using a structured questionnaire. Overall, the findings underscore the significant roles that trust and employee outcomes have to play in the relationship between HPWS and service quality.

Finally, in the last part of the present thesis we investigate both the positive and the negative effects of HPWS on employee well-being. Specifically, using data obtained from 343 front-line employees working in a Greek manufacturing company, this study utilizes the Job Demands - Resources model and examines the effects of employees' perceptions of HPWS on employees' disengagement from work and emotional exhaustion. Overall, the findings do not support the critical arguments towards HPWS, and are in favor of the positive perspective.

Given the increasing calls to examine the mechanisms through which HPWS influences employee outcomes, the findings of this thesis provide the wider academic community and

human resource management professionals with new insights on the actual processes through which HPWS influences employee attitudes and behaviors. Finally, this thesis seems to confirm the argument that HPWS can be a fruitful approach even in a country severely affected by Europe's debt crisis over the last five years.

## ΠΕΡΙΛΗΨΗ

Τις τελευταίες τρεις δεκαετίες παρατηρείται έντονη συζήτηση στη διεθνή βιβλιογραφία σχετικά με το καταλληλότερο σύστημα πρακτικών Διοίκησης Ανθρώπινου Δυναμικού (HR practices) που θα πρέπει να υιοθετηθεί από μία επιχείρηση με στόχο την μεγιστοποίηση της οργανωσιακής απόδοσης. Τα συστήματα αυτά πρακτικών Διοίκησης Ανθρώπινου Δυναμικού (HR practices) είναι ευρύτερα γνωστά με τον όρο «Συστήματα Διοίκησης Ανθρώπινου Δυναμικού Υψηλής Απόδοσης» (High Performance Work Systems / HPWS). Αρχικά, το ενδιαφέρον των ερευνητών περιορίστηκε στη μελέτη της άμεσης αιτιώδους σχέσης (direct relationship) μεταξύ των HPWS και της οργανωσιακής απόδοσης. Μετέπειτα – και ειδικότερα μετά τη νέα χιλιετία – οι ερευνητές εστίασαν την προσοχή τους στον ακριβή τρόπο λειτουργίας αυτής της σχέσης (the what, the why, and the how) κάτι που έγινε ευρύτερα γνωστό ως το «μαύρο κουτί» (the black-box). Σε μία προσπάθεια επεξήγησης του «μαύρου κουτιού», δόθηκε ιδιαίτερη έμφαση στο βασικό ρόλο που μπορεί να διαδραματίσουν οι στάσεις και συμπεριφορές των εργαζομένων. Ως εκ τούτου, οι πρώτες εκτιμήσεις ανέφεραν πως οι πρακτικές Διοίκησης Ανθρώπινου Δυναμικού (HR practices) επηρεάζουν τις ικανότητες (abilities) των εργαζομένων, δίνουν τα κατάλληλα κίνητρα (motivation) και παρέχουν τις κατάλληλες ευκαιρίες (opportunities) για εργασία, δημιουργώντας με τον τρόπο αυτό θετικές συμπεριφορές του προσωπικού, επηρεάζοντας με τη σειρά τους την απόδοση του εκάστοτε οργανισμού. Συνεπώς, έγινε αντιληπτό πως η αύξηση της οργανωσιακής απόδοσης δεν επηρεάζεται άμεσα από τις πρακτικές του Ανθρώπινου Δυναμικού (HR practices) αυτές καθαυτές, αλλά από την θετική επίδρασή τους στις στάσεις και συμπεριφορές των εργαζομένων. Εντούτοις, παρά τις παραπάνω εξελίξεις και την πρόοδο σχετικά με την αποσαφήνιση του ακριβούς τρόπου λειτουργίας του «μαύρου κουτιού», εξακολουθεί να



υπάρχει ένα μεγάλο κενό στην διεθνή βιβλιογραφία σχετικά με τον ακριβή μηχανισμό μέσω του οποίου τα συστήματα HPWS επηρεάζουν τις στάσεις και συμπεριφορές των εργαζομένων.

Λαμβάνοντας υπ' όψιν τα παραπάνω, η παρούσα διδακτορική διατριβή προσπαθεί να αποσαφηνίσει τον μηχανισμό μέσω του οποίου οι πρακτικές Διοίκησης Ανθρώπινου Δυναμικού (HR Practices) επηρεάζουν τις συμπεριφορές των εργαζομένων και την μετέπειτα οργανωσιακή απόδοση στο Ελληνικό περιβάλλον. Πιο συγκεκριμένα, το πρώτο μέρος της διατριβής επικεντρώνεται στο χώρο της Υγείας και προσπαθεί να εξηγήσει την συμβολή των HPWS στην δημιουργία θετικών στάσεων και συμπεριφορών του ιατρικού και νοσηλευτικού προσωπικού στα υπό έρευνα νοσοκομειακά ιδρύματα της χώρας. Κατά συνέπεια, υιοθετήθηκαν και εξετάστηκαν θεωρίες που ανήκουν στο επιστημονικό πεδίο της Οργανωσιακής Συμπεριφοράς, όπως οι θεωρίες της «Ψυχολογικής Ενδυνάμωσης» (Psychological Empowerment), της «Κοινωνικής Ταυτότητας» (Social Identity), καθώς και οι θεωρίες της «Κοινωνικής Συναλλαγής» (Social Exchange) και της «Οικονομικής Συναλλαγής» (Economic Exchange). Για τον σκοπό αυτό διενεργήθηκε έρευνα πεδίου με την μέθοδο του ερωτηματολογίου συγκεντρώνοντας δείγμα ιατρικού και νοσηλευτικού προσωπικού (297 εργαζομένων) από επτά νοσηλευτικά ιδρύματα της Ελλάδας. Τα ευρήματα φανερώνουν πως η επίδραση των HPWS στις συμπεριφορές του νοσηλευτικού και ιατρικού προσωπικού μπορεί να επηρεαστεί από την φύση της εργασιακής σχέσης μεταξύ εργαζομένων και εργοδοσίας (Κοινωνική ή Οικονομική Συναλλαγή), η οποία με τη σειρά της επιδρά στην ενεργό εμπλοκή (work engagement) και συναισθηματική εξάντληση (emotional exhaustion) των εργαζομένων. Επιπροσθέτως, τα αποτελέσματα υπογραμμίζουν τον σημαντικό ρόλο που διαδραματίζουν τα HPWS στην δημιουργία σχέσεων αλληλεγγύης και αλληλοϋποστήριξης (θεωρία της Κοινωνικής Ταυτότητας) που αναπτύσσονται μεταξύ ομάδων εργαζομένων, ενώ φανερώνουν πως χωρίς την παρουσία της «Ψυχολογικής Ενδυνάμωσης» του προσωπικού η επίδραση των HPWS στην ποιότητα των παρεχόμενων υπηρεσιών υγείας (quality of patient

care) θα είναι περιορισμένη. Τέλος, τα ευρήματα τονίζουν την θετική επίδραση των HPWS στις γενικότερες στάσεις και συμπεριφορές των εργαζομένων – συμπεριλαμβανομένων της βελτίωσης της εργασιακής ικανοποίησης (job satisfaction), της οργανωσιακής δέσμευσης (affective commitment) καθώς και της ενεργούς εμπλοκής (work engagement) στην εργασία – καθώς και στη μείωση της τάσης παραίτησης του προσωπικού (intention to leave).

Το δεύτερο μέρος της διδακτορικής διατριβής επικεντρώνεται στον ελληνικό τραπεζικό τομέα κι εξετάζει τον ουσιαστικό ρόλο που διαδραματίζουν οι σχέσεις εμπιστοσύνης (trust) εργαζομένων και εργοδοσίας στην αιτιώδη σχέση μεταξύ HPWS, θετικών στάσεων και συμπεριφορών εργαζομένων (ικανοποίηση από εργασία και οργανωσιακή δέσμευση) και τέλος ποιότητας προσφερόμενων υπηρεσιών (service quality). Για τον σκοπό αυτό πραγματοποιήθηκε έρευνα πεδίου με τη μέθοδο του ερωτηματολογίου συγκεντρώνοντας δείγμα 350 τραπεζικών υπαλλήλων πρώτης γραμμής στις τέσσερις συστημικές τράπεζες. Συνολικά, τα ευρήματα υπογραμμίζουν το σημαντικό ρόλο που διαδραματίζει η ανάπτυξη σχέσεων εμπιστοσύνης (trust) στην επίδραση των ολοκληρωμένων συστημάτων HPWS τόσο στις θετικές στάσεις και συμπεριφορές των εργαζομένων όσο και στην ποιότητα των παρεχόμενων υπηρεσιών.

Τέλος, το τρίτο μέρος της διδακτορικής διατριβής μελετά τόσο τις θετικές όσο και τις αρνητικές επιδράσεις των HPWS στις συμπεριφορές των εργαζομένων (employee well-being). Πιο συγκεκριμένα, η έρευνα υιοθετεί το επονομαζόμενο μοντέλο “Job Demands-Resources (JD-R)” και μελετά την επίδραση των HPWS στην απομάκρυνση από την εργασία (disengagement from work) και στην συναισθηματική εξάντληση (emotional exhaustion) των εργαζομένων. Για το σκοπό της έρευνας, συγκεντρώθηκε δείγμα 343 υπαλλήλων πρώτης γραμμής ελληνικής μεταποιητικής μονάδας. Συνολικά, τα ευρήματα απορρίπτουν την αρνητική προσέγγιση των HPWS, ενώ υπογραμμίζουν την θετική τους συμβολή (θετική προσέγγιση).

Με γνώμονα την ανάγκη της πληρέστερης κατανόησης της διαδικασίας μέσω της οποίας τα ολοκληρωμένα «Συστήματα Διοίκησης Ανθρώπινου Δυναμικού Υψηλής Απόδοσης» (HPWS) επηρεάζουν τις στάσεις και συμπεριφορές των εργαζομένων, η συγκεκριμένη διδακτορική διατριβή αποσαφηνίζει τον ακριβή μηχανισμό λειτουργίας της παραπάνω σχέσης, ενώ τα αποτελέσματα των επί μέρους ερευνών συνεισφέρουν τόσο στην ευρύτερη ακαδημαϊκή κοινότητα όσο και σε πρακτικό επίπεδο. Εν κατακλείδι, η παρούσα διδακτορική διατριβή επιβεβαιώνει την σπουδαιότητα και σημασία του συστήματος HPWS ακόμα και σε χώρες που κλυδωνίζονται από την οικονομική κρίση που μαστίζει την εκάστοτε κοινωνία κατά τα τελευταία 5 έτη, όπως συμβαίνει στην περίπτωση της Ελλάδας.

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# Contents

<b>PART I INTRODUCTION</b> .....	1
<b>1. Introduction</b> .....	2
1.1 General description of the research problem .....	2
1.2. Aim, Objectives and Research Questions .....	4
1.3 Thesis contribution .....	9
1.4 Thesis structure .....	11
References .....	14
<b>PART II THE EMERGENCE of HPWS – COMPONENTS AND CHARACTERISTICS</b> .....	18
<b>2. High – Performance Work Systems (HPWS)</b> .....	19
2.1 The Emergence of HPWS .....	19
2.2 Characteristics of a High – Performance Work System (HPWS) .....	24
2.3 High Commitment Management (HCM) and High Involvement Management (HIM) .....	27
2.4 Components of a High-Performance Work System (HPWS) .....	29
References .....	34
<b>PART III HRM AND PERFORMANCE</b> .....	38
<b>3. The Relationship between HRM and Performance</b> .....	39
3.1 Introduction .....	39
3.2 The first phase – The beginnings .....	40
3.2.1 Strategic Human Resource Management (SHRM) .....	40
3.2.1.1 The resource –based view (RBV) of the firm .....	41
3.2.1.2 Critiques to the resource-based view (RBV) .....	43

3.2.1.3 Strategic fit .....	45
3.3. The second phase – Empiricism .....	45
3.4 The third phase – Backlash and reflection .....	46
3.4.1 The universalistic perspective .....	47
3.4.2 The contingency perspective .....	48
3.4.3 The configurational perspective .....	48
3.4.4 The contextual perspective .....	49
3.4.5 The ‘best practice’, the ‘best fit’ and the ‘bundling’ approaches ...	50
3.4.5.1 <i>The ‘best practice’ approach</i> .....	50
3.4.5.2 <i>The ‘best fit’ approach</i> .....	52
3.4.5.3 <i>The ‘bundling’ or ‘systems’ approach</i> .....	52
3.4.6 Research and evidence of ‘fit’ .....	54
3.4.7 Internal fit and possible effects .....	56
3.4.8 The complexity of internal fit and the HRM architecture .....	58
3.5 The fourth phase – The conceptual refinement .....	60
3.5.1 The institutional perspective .....	61
3.6 The fifth phase – Bringing the worker center-stage .....	62
3.6.1 The black-box .....	62
3.7 The sixth phase – Growing sophistication .....	64
References .....	66
<b>PART IV IMPLEMENTING HPWS IN THE MANUFACTURING SECTOR</b> .....	61
<b>4. HPWS in the Manufacturing sector</b> .....	72
4.1 Introduction .....	73
4.2 Review: The HPWS implementation in the Manufacturing sector .....	74
4.2.1 HRM impact on workers’ outcomes and performance .....	74
4.2.2 The ‘black-box’: Mechanism of the HRM – Performance relationship .....	86

4.2.3 Growing sophistication .....	92
4.3 Implementation of the HPWs in the Small Medium Enterprises (SMEs) .	96
4.3.1 Definition of SMEs and related issues .....	96
4.3.2 Theorizing HRM in SMEs: Differences between large firms and SMEs .....	98
4.3.3 Theorizing HRM in SMEs: from ‘bleak-house’ to ‘small is beautiful’ .....	99
4.3.4 Empirical studies .....	102
References .....	111
<b>PART V IMPLEMENTING HPWS IN THE SERVICE SECTOR .....</b>	<b>118</b>
<b>5. HPWS implementation in the Service sector .....</b>	<b>119</b>
5.1 Introduction .....	119
5.2 Characteristics of the service sector .....	120
5.3 The usefulness of HRM in the service context and its role towards achieving service quality .....	122
5.4. Additional challenges for the service sector .....	123
5.5 Empirical studies focusing on the broader service sector .....	125
<b>5.6 HPWS implementation in the Healthcare sector .....</b>	<b>132</b>
5.6.1 Introduction .....	132
5.6.2 Empirical studies focusing on the healthcare context .....	134
5.6.3 Burnout: Emotional exhaustion and disengagement from work .....	142
5.6.4 Quality of Care and Mortality rates .....	146
5.6.5 Quality of care and patient satisfaction .....	150
5.6.6 HRM and managerial levels .....	154
5.6.6.1 <i>Empirical studies on HRM and managerial levels</i> .....	156
5.6.7 Models Developed .....	160
References .....	166

<b>PART VI HPWS RESEARCH IN THE GREEK SERVICE AND MANUFACTURING CONTEXTS</b> .....	174
<b>6. HPWS research in the Greek service context</b> .....	175
6.1 Introduction .....	175
<b>6.2 Project #1 Implementation of HPWS in the Greek healthcare context</b> .....	180
6.2.1 The Greek context .....	181
6.2.2 The Greek Healthcare System .....	184
6.2.3 Sample and procedure .....	185
<u>6.2.4 Empirical Study #1</u> The effects of high-performance work systems on hospital employees' work-related well-being: Evidence from Greece .....	186
6.2.4.1 Introduction .....	187
6.2.4.2. Theory and Conceptual Framework .....	187
6.2.4.2.1 <i>The Social and Economic exchange theories</i> .....	187
6.2.4.2.2 <i>Burnout – Emotional exhaustion and disengagement from work</i> .....	190
6.2.4.2.3 <i>Job satisfaction</i> .....	193
6.2.4.3 Measures .....	194
6.2.4.4 Statistical Model .....	197
6.2.4.5 Validity and Reliability .....	199
6.2.4.6 Results .....	202
6.2.4.7. Discussion and conclusions .....	205
<u>6.2.5 Empirical Study #2</u> Modeling patient care quality: an empirical high performance work system approach .....	210
6.2.5.1 Introduction .....	211
6.2.5.2 Theory and Conceptual Framework .....	211
6.2.5.2.1 <i>The Social Identity Theory</i> .....	211
6.2.5.2.2 <i>Psychological Empowerment</i> .....	214
6.2.5.2.3 <i>Quality of Care</i> .....	216
6.2.5.3 Measures .....	217



6.2.5.4 Statistical Model .....	219
6.2.5.5 Validity and Reliability .....	222
6.2.5.6 Results .....	226
6.2.5.7 Discussion .....	229
<b>6.2.6 Empirical Study #3</b> Linking innovative human resource practices, employee attitudes and intention to leave in healthcare services .....	232
6.2.6.1 Introduction .....	233
6.2.6.2 Theory and Conceptual Framework .....	233
6.2.6.2.1 <i>Job satisfaction</i> .....	233
6.2.6.2.2 <i>Affective commitment</i> .....	234
6.2.6.2.3 <i>Work engagement</i> .....	236
6.2.6.2.4 <i>Intention to leave</i> .....	238
6.2.6.3 Measures .....	242
6.2.6.4 Statistical Analysis and analytical procedures .....	245
6.2.6.5 Results .....	245
6.2.6.6 Discussion and conclusions .....	250
<b>6.3 Project #2 Implementation of HPWS in the Greek banking sector</b> .....	253
<b>6.3 Empirical study</b> The link between perceived High Performance Work Practices, employee attitudes and service quality: The mediating and moderating role of trust .....	253
6.3.1 Introduction .....	254
6.3.2 Theory and Conceptual Framework .....	255
6.3.2.1 <i>The relationship between HPWS and Trust</i> .....	255
6.3.2.2 <i>Employee outcomes – Job satisfaction and affective commitment</i> .....	256
6.3.2.3 <i>Relationship between HPWS, employee outcomes and service quality</i> .....	258
6.3.3 Method .....	261
6.3.3.1 <i>Sample and procedure</i> .....	261
6.3.3.2 <i>Common Method Variance</i> .....	261

6.3.4 Statistical Model .....	262
6.3.4.1 <i>Validity and Reliability</i> .....	263
6.3.5 Results, discussion, and conclusions .....	264
<b>6.4 HPWS research in the Greek manufacturing context</b> .....	267
6.4.1 Introduction .....	267
6.4.2 Competing views on the HRM contribution to employee outcomes .....	268
6.4.3 Research goals .....	270
<u>6.4.4 Empirical Study</u> Is it worth it? Linking perceived high-performance work systems and burnout: The mediating role of job demands and job resources .....	272
6.4.4.1 Theory and Conceptual Framework .....	273
6.4.4.1.1 <i>HPWS and Burnout</i> .....	273
6.4.4.1.2 <i>The Job demands – Resources (JD-R) model</i> .....	274
6.4.4.1.3 <i>HPWS and the JD-R model</i> .....	275
6.4.4.1.4 <i>The mediating role of JD-R</i> .....	276
6.4.4.2 Methods .....	277
6.4.4.2.1 <i>Sample and procedure</i> .....	277
6.4.4.2.2 <i>Common Method Variance</i> .....	278
6.4.4.3 Statistical Model .....	278
6.4.4.3.1 <i>Validity and Reliability</i> .....	279
6.4.4.4 Results, discussion, and conclusions .....	280
References .....	283
<b>PART VII DISCUSSION</b> .....	301
<b>7. Discussion, Theoretical and Practical Implications</b> .....	302
7.1 Introduction .....	302
7.2 Challenges of the present thesis .....	303
7.2.1 Challenge #1: The relationship between HPWS and employee outcomes .....	303

7.2.2 Challenge #2: The social and economic exchange theories in the employee-employer relationship .....	305
7.2.3 Challenge #3: The social identity theory and the psychological empowerment perspective towards healthcare quality .....	308
7.2.4 Challenge #4: The importance of the ‘trust’ theory .....	311
7.2.5 Challenge #5: The job-demands resources (JD-R) model .....	314
7.3 Limitations and Strengths .....	317
7.3.1 The nature of the study .....	318
7.3.1.1 <i>Common method variance (CMV)</i> .....	318
7.3.1.2 <i>Issue of reverse-causality</i> .....	320
7.3.2 Data collection .....	321
7.3.2.1 <i>Diverse sets of HR practices towards different employee groups</i> .....	322
7.3.2.2 <i>Differences in data collection between managers and employees</i> .....	323
7.3.3 The Greek context .....	325
7.3.4 The HPWS construct - ‘Systems’ vs ‘bundling’ approaches .....	326
7.4 Future research .....	327
References .....	330
Appendix I: Empirical study #1 – The effects of high-performance work systems on hospital employees’ work-related well-being: Evidence from Greece .....	338
Appendix II: Empirical study #2 – Modeling patient care quality: an empirical high performance work system approach .....	343
Appendix III: Empirical study #3 – Linking innovative human resource practices, employee attitudes and intention to leave in healthcare services .....	348

# List of Tables

## **Chapter 6**

<b>Empirical Study #1</b> .....	186
TABLE 6.1 Composite reliability, Average Variance Extracted (AVE) and convergent validity .....	200
TABLE 6.2 Discriminant validity through the Fornell-Lacker criterion (Square Root of AVE on diagonal) .....	201
TABLE 6.3 Summary of Path Coefficients and Significance levels .....	203
<b>Empirical Study #2</b> .....	210
TABLE 6.4 Composite reliability, Average Variance Extracted (AVE) and convergent validity .....	223
TABLE 6.5 Discriminant validity through the Fornell-Lacker criterion (Square Root of AVE on diagonal) .....	225
TABLE 6.6 Summary of Path Coefficients and Significance levels .....	226
TABLE 6.7 Summary of Path Coefficients and Significance levels for mediation Hypotheses .....	227
<b>Empirical Study #3</b> .....	232
TABLE 6.8 Correlations and Cronbach's $\alpha$ coefficients .....	242
TABLE 6.9 Standardized path estimates and associated statistics .....	247
TABLE 6.10 Standardized path estimates and associated statistics .....	248
TABLE 6.11 Standardized path estimates and associated statistics for each group Separately .....	249

# List of Figures

## Chapter 6

<b>Empirical Study #1</b> .....	186
FIGURE 6.1 The proposed model .....	198
FIGURE 6.2 The Two-step approach model .....	199
FIGURE 6.3 The moderating effect of social exchange perception on the relationship between HPWS and emotional exhaustion .....	204
<b>Empirical Study #2</b> .....	210
FIGURE 6.4 The proposed model of quality of patient care .....	221
FIGURE 6.5 The Two-step approach model .....	222
<b>Empirical Study #3</b> .....	232
FIGURE 6.6 The proposed model .....	241
FIGURE 6.7 Mediated structural equation model (Work engagement as mediator) .....	246
FIGURE 6.8 Mediated structural equation model (Job satisfaction as mediator) ...	247
<b>Empirical Study in the Greek banking sector</b> .....	253
FIGURE 6.9 The Two-step approach model .....	262
FIGURE 6.10 Conceptual model and Path coefficients .....	264
<b>Empirical Study in the Greek manufacturing context</b> .....	272
FIGURE 6.11 The Two-step approach model .....	279
FIGURE 6.12 Conceptual model and Path coefficients .....	280

# **PART I**

## Introduction

# 1.Introduction

## 1.1 General description of the research problem

During the past 20 years, there has been a great deal of debate regarding the appropriate human resource (HR) practices that should be used in an organization in order to lead to workers' prosperity and well-being and consequently to greater efficiency and increased financial performance for the organizations. The most common term characterizing such a relationship is known as High Performance Work Systems (HPWS). The usefulness of HPWS can be explained by Datta et al. (2005, p. 136) argument that HPWS enhances employees' skills, commitment, and productivity in such a way that employees become a source of sustainable competitive advantage, as opposed to individual HR practices. Indeed, there is a dominant view nowadays that success in markets is largely derived from a firm's Human Resources (HR), as HR is one of the most important resources to generate a firms' competitive advantage (Zhang and Morris, 2014, p. 84).

There are various definitions regarding HPWS that researchers use interchangeably. For instance, Appelbaum et al. (2000) defined HPWS as a way of organizing work so that front-line workers participate in decisions that have a real impact on their jobs and the wider organization. Specifically, in their seminal work '*Manufacturing Advantage: Why high performance work systems pay off*' Appelbaum et al (2000) argued that a HPWS is generally associated with workshop practices that raise the levels of trust within workplaces and increase workers' intrinsic reward from work, and thereby enhance organizational commitment'. Way (2002) and Wood and Wall (2002) conceptualized HPWS as a group of separate but interconnected human resource practices that together recruit, select, develop, motivate, and retain employees (see also Zacharatos et al., 2005). Although most of these researchers describe HPWS in a similar way, to the best of our knowledge Bohlander and Snell (2007) provided

one of the most complete HPWS definitions. In detail, Bohlander and Snell (2007, p. 690) defined HPWS as *'a specific combination of HR practices, work structures, and processes that maximizes employee knowledge, skill, commitment, and flexibility'*. One significant aspect of this definition is the reference to a 'system' or 'bundles of practices' and not to isolated individual practices, since *'HPWS is composed of many interrelated parts that complement one another to reach the goals of an organization'* (pp. 16-2).

Since the mid nineties, HPWS caused a great interest among researchers and practitioners. Indeed, there has been a vast amount of empirical studies linking Human Resource Management (HRM) with organizational performance. (e.g., Arthur, 1992; Huselid, 1995; MacDuffie, 1995; Ichniowski et al., 1997). However, the years following the new millennium, a stream of research started focusing on the development of a better theory with regard to the HR practices, outcomes and the link between them (e.g., Appelbaum et al., 2000; Kinnie et al., 2005; Zacharatos et al., 2005; Boxall and Macky, 2007; Purcell and Hutchinson, 2007). In more detail, researchers highlighted the need to understand not only the 'what' and the 'why' of the impact of HRM, but also the 'how' (Purcell et al., 2009), which soon became known as the 'black-box' issue (e.g., Becker and Huselid, 2006; Messersmith et al., 2011). The latter soon considered to be one of the key issues requiring further attention in the field of HRM. As a result, there were increasing calls to open the 'black-box' and to focus on the key role of workers' perceptions and behavior in understanding the relationship between HRM and performance (Messersmith et al., 2011).

Based on the previous discussion, empirical studies started focusing on the examination of the linkage between HPWS and employee attitudes and behaviors (e.g., Macky and Boxall, 2007; Takeuchi et al., 2009). However, and despite these initial efforts, researchers continued calling for more theory and research on the intervening mechanisms that may contribute to explaining the impact of HRM practices on organizational outcomes (e.g. Innocenti et al., 2011,



p. 304; Jiang et al., 2012). Specifically, recent studies suggest more employee-centered research, in order to restore the effects of HRM on employee outcomes to a central position of HPWS studies (Van De Voorde and Beijer, 2015), and highlight the need to focus on the processes that help to explain how HPWS influences health-related outcomes (van de Voorde and Beijer, 2015, p. 62). Indeed, although employee outcomes have been identified as a crucial mediating variable in unlocking the ‘black-box’, research emphasizing the antecedent processes through which a system of HRM practices (such as HPWS) influences employees’ attitudes and role behaviors is still in need of further exploration (Jiang et al., 2012).

## 1.2. Aim, Objectives and Research Questions

Taking the preceding discussion into consideration, the purpose of the thesis is to respond to the calls for restoring the effects of HRM on employee outcomes to a central position of HPWS. Hence, the current study was guided by two objectives. Each objective refers to the exploration of the ‘black-box’ in its own way.

*Objective 1:* Exploring the processes through which HPWS influences employee outcomes and well-being in the Greek context

Several dominant perspectives have been used by researchers to explain the ‘black-box’ issue, such as the human capital path, and the behavior motivation approach (see Jiang et al., 2012, 2013; Heffernan and Dundon, 2016; Raineri, 2016; Shin et al., 2016). The human capital approach, supported by the Resource Based View of the firm (RBV; Barney, 1991) theory, proposes that HPWS focuses on the potential contributions of employees’ competencies, in other words their knowledge, skills, and abilities, all of which help employees in achieving higher levels of performance. In turn, the RBV proposes that organizations can obtain a

competitive advantage from resources which can be valuable, rare, inimitable, and non-substitutable (Barney, 1991). On the other hand, the behavior motivation approach (Jackson et al., 1989) uses a psychology framework and suggests that HPWS affects organizational outcomes by influencing employees' attitudes and role behaviors (such as affective commitment, and job satisfaction), which in turn motivate employees to exert efforts to perform (see Jiang et al., 2012; Raineri, 2016). With regard to the motivational path, research has also emphasized the antecedent processes that contribute to the development of these employee attitudes that mirror motivation, such as the social exchange theory (Blau, 1964) and the norm of reciprocity (Gouldner, 1960), the social identity theory (Taifel and Turner, 1986), the psychological empowerment perspective (Spreitzer, 1995), the trust theory (Mayer et al., 1995; Rousseau et al., 1998), and high-involvement processes in general (see Raineri, 2016). Overall, Raineri (2016, p. 7) demonstrated a 'sequence of events' in explaining the 'black-box', where the motivational path initiates at the implementation of HPWS, which facilitates processes such as reciprocal social exchanges and enhancement of employees' social identity. As a result, these processes develop employees' attitudes that mirror motivation (such as affective commitment and job satisfaction), which finally leads to performance.

The first objective of the thesis follows specifically the 'behavior motivation' approach described in the previous paragraph in an effort to shed some light into the 'black-box' mechanism. Specifically, the first objective adopts several theoretical frameworks and investigates the process through which HPWS influences employee outcomes. In detail, this first objective comprises two projects. The first project consists of three empirical studies and focuses on the Greek healthcare sector. These studies are guided by the following research questions.

*i. The social and economic exchange theories*

*R.Q.1.* What is the impact of the employment relationship - whether a social or economic exchange - between employees and employers on the relationship between employees' perceived HPWS and work-related well-being? In detail, have the two exchange theories the ability to mediate and moderate the proposed relationships? Employee well-being is measured by employees' emotional exhaustion, work engagement and job satisfaction.

*ii. The social identity and psychological empowerment theories*

*R.Q.2.* What is the impact of the social identity and the psychological empowerment theories on the relationship between employees' perceived HPWS and quality of patient care?

*iii. Job attitudes and employee outcomes*

*R.Q.3.* What are the effects of employees' perceived HPWS on employees' work engagement and job satisfaction? Have these job attitudes any mediating effect on employees' affective commitment and intention of leaving their jobs?

The second project consists of one empirical study and focuses on the Greek banking sector. This study incorporates the 'trust' theory and is guided by the following research question.

*iv. The 'trust' theory*

*R.Q.4.* What is the impact of employees' trust in the employer on the relationship between employees' perceived HPWS and service quality? Moreover, what is the role of employee outcomes (measured by job satisfaction and affective commitment) in the proposed relationship? Finally, what is the mediating role of trust in the relationship between HPWS and employee outcomes?

*Objective 2:* Exploring the 'positive' and 'critical' perspectives of HPWS – A 'bundling' approach

Overall, a vast amount of empirical research suggests a positive association between HPWS and job attitudes and outcomes (e.g., Appelbaum et al., 2000; Macky and Boxall, 2007; Takeuchi et al., 2009), which seem to mediate the relationship between HPWS and organizational effectiveness (e.g., Boselie et al., 2005; Sun et al., 2007). Despite these positive effects, however, some studies provide a different picture, suggesting the HPWS might be working at the expense of employees, causing increased job strain and work intensification (e.g., Ramsay et al., 2000), decline in satisfaction and increased stress (e.g., Godard, 2001), and higher degrees of employee anxiety (e.g., Wood and de Menezes, 2011; Jensen et al., 2013). In general, there are two competing views prevailing in the HRM literature with regard to the position of employee well-being in the HRM-organizational performance relationship, namely the 'mutual gains' and the 'conflicting outcomes' perspectives (van de Voorde et al., 2012). The 'mutual gains' perspective suggests that employees and employers both benefit from HRM, and thus, HRM fosters employee well-being, which results in improved operational and financial performance. In contrast, the 'conflicting outcomes' perspective

suggests that HRM has either no, or even a negative effect on employee well-being, and as a result, enhanced organizational performance is achieved at the cost of reduced employee well-being (see van de Voorde et al., 2012). In more detail, the main argument is that these high performing HR systems aiming at increasing organizational effectiveness can lead to work intensification, make work more challenging, and increase employee feelings of being exploited (e.g. Kroon et al., 2009, p. 510; Jensen et al., 2013). As a result, employees' health and well-being are reduced (Oppenauer and van de Voorde, 2016, p. 2).

In addition to the previous paragraph, the vast majority of researchers tend to calculate HPWS as a unitary index by following a subscale aggregation approach, which represents the overall HRM system. However, Jiang et al. (2012) challenged this approach based on the argument that different types of HR practices influence important outcomes through different paths, suggesting that the components of HR systems are not perfectly interchangeable with one another in terms of the mechanisms of their impact on the workforce (Jiang et al., 2013: 1449). Therefore, Jiang et al. (2012) suggested that the highly varied of HR practices should be categorized into several sub-dimensions.

Taking the preceding discussion into consideration, the second objective acknowledges the need to examine both the light (positive) and dark (negative) sides of HPWS (Boxall et al., 2016), as well as the need to decompose the HPWS construct into three bundles of practices. In detail, this second objective consists of one study that adopts the Job Demands-Resources (JD-R; Demerouti et al., 2001) model in explaining the relationship between HPWS and burnout (emotional exhaustion and disengagement from work). This study is guided by the following three research questions.

*v. The positive perspective*

*R.Q.5.* What is the role of job resources in the relationship between employees' perceptions of HPWS and burnout?

*vi. The critical perspective*

*R.Q.6.* What is the role of job demands in the relationship between employees' perceptions of HPWS and burnout?

*vii. 'Systems' versus 'bundles' of practices*

*R.Q.7.* Decomposing HPWS into 'bundles' of practices, are there any differences in the proposed relationship compared to the effects of HPWS as a 'system' of practices?

### 1.3 Thesis contribution

The current thesis contributes to the Strategic Human Resource Management (SHRM) literature in a number of ways. To begin with, the present thesis responds to the calls for restoring the effects of HRM on employee outcomes to a central position of HPWS (van de Voorde and Beijer, 2015). Hence, by following an 'employee-centric' perspective, the first objective of the thesis sheds light into the 'black-box' issue, and explores the relationship between HPWS and employees' well-being. With that purpose in mind, and by following the 'behavior motivation' approach, the empirical studies comprising the first objective adopt several theories from the psychology science and examine the antecedent processes that contribute to the development of the employees' attitudes, that in turn mirror motivation.

In addition, this thesis contributes to the SHRM literature by providing evidence of the dark (negative) side of HPWS on employee outcomes (Boxall et al., 2016). Indeed, the second objective of the thesis provides evidence of the simultaneous investigation of both the ‘mutual gains’ and the ‘conflicting outcomes’ perspectives on the relationship between HPWS and burnout. In this way, the current thesis sheds light on the researchers’ arguments that HPWS might be working at the expense of employees, increasing job strain, stress, and work intensification (e.g., Ramsay et al., 2000; Godard, 2001; Jensen et al., 2013).

Moving a step further, and taking into consideration that previous research tend to calculate HPWS as a unitary index by following a subscale aggregation approach, the study of the second thesis’ objective contributes to the HRM literature by decomposing HPWS into a bundles of practices, based on the Ability – Motivation – Opportunities (AMO framework) developed by Appelbaum et al. (2000). In addition, this study compares these two methods – the ‘systems’ and the ‘bundling’ approaches – and provide implications for theory and practice.

Finally, one significant issue prohibiting generalizations of the positive findings among studies concerns the existing differences between different contexts and countries. The context in which organizations operate may indeed limit or enhance the HPWS usefulness and success due to differences in the culture, the legislative frames, and other cultural and institutional factors that are considered country-contingent, and which shape employment relationships and HR decision making in organizations. Therefore, practices which seem to be appropriate in one culture may be less appropriate in another (Den Hartog and Verburg, 2004; Boxall and Macky, 2009). Thus, what makes this specific research unique is the focus on the Greek context. Greece is the first European Union country that has been severely affected by Europe’s financial crisis since 2008. Following Takeuchi et al. (2007, p. 1080), and given that the theoretical underpinning of the present thesis was derived from theories of advanced economies (e.g.,

USA / UK), the Greek sample may be considered a strength of this study since it illustrates theoretically-derived relationships in a non-US/UK context.

## 1.4 Thesis structure

This thesis is organized in seven core parts. Following the First Part which serves as an introduction to the research problem, the Second Part provides a review of the High Performance Work Systems (HPWS) approach. We begin with the historical evolution of the emergence of the HPWS, and then we present the HPWS components and characteristics.

The Third Part considers the relationship between HRM and performance. Taking into consideration the importance of acknowledging the considerable progress that has been made in theory and research through the years, the analysis of this Third Part is based on the identification of several phases, as these have been demonstrated by Guest (2011). Specifically, the first phase starts with ‘The beginnings’ of the development of theory and research regarding the association between HRM and performance that occurred mainly in the 1980s. The second phase, ‘Empiricism’ presents the first set of empirical studies in examining the HRM and performance relationship. The third phase, ‘Backlash and reflection’, describes the key conceptual perspectives that were identified in the SHRM literature, as there was a need for a sounder conceptual basis not only for determining the appropriate HR practices that should be used, but also for generalizability purposes. These perspectives include the ‘universalistic’, ‘the contingency’, and the ‘configurational’ approaches, as well as the ‘best practice’, the ‘best fit’ and the ‘bundling’ or ‘systems’ approaches. The fourth phase, ‘The conceptual refinement’ focuses on the development of a better theory regarding HR practices, outcomes and the link between them. This phase includes the well-known AMO framework (Abilities, Motivation, Opportunities) developed by Appelbaum et al. (2000). The fifth phase ‘Bringing the worker center-stage’ introduces the ‘black-box’ issue. Finally, the sixth phase, ‘Growing



sophistication' describes the recent development of theory and research in the SHRM literature. Essentially, the thesis' scope falls into these last two phases.

The Fourth Part focuses specifically on the manufacturing sector. The goal is to review the literature by presenting some of the most important empirical studies of the sector incorporating the HPWS approach. In addition, the second part of this chapter focuses on the HPWS implementation in the Small Medium Enterprises (SMEs). Accordingly, this section presents the characteristics that differentiate SMEs from the broader manufacturing sector and reviews some of the most important empirical studies of the sector.

The Fifth Part focuses on the service sector. First, the special characteristics of this sector are presented, along with the usefulness of HRM in the service context and its role towards achieving service quality. Next, we present some of the most important empirical studies focusing on the broader service sector. The following part of this chapter focuses on the healthcare sector specifically. Taking into consideration that the first research project of the present thesis is focused on the healthcare sector, the latter is reviewed thoroughly.

The Sixth Part focuses on the two main objectives of our research. Specifically, this part consists of three sub-sections. The first sub-section focuses on the first project of our thesis, which is based on the Greek healthcare sector and consists of three empirical studies. A general introduction is presented, along with the special characteristics of the Greek context and the Greek healthcare system. Next, each empirical study is presented consecutively. For this project, empirical evidence was obtained from 297 clinicians (doctors and nurses) across seven Greek regional hospitals. The second sub-section of the chapter presents the second project, that is focused on the Greek banking sector. Accordingly, the theoretical framework is presented, followed by the empirical study. In this survey, empirical evidence was obtained from 350 front-line employees working in the Greek banking sector. Finally, the third sub-section of the chapter focuses on the second objective of the thesis. Specifically, this section

begins with the introduction and the theoretical framework, followed by the empirical study in the Greek manufacturing sector. In this survey, empirical evidence was obtained from 343 front-line employees in a Greek manufacturing company.

The Seventh Part, discusses the most important conclusions with regard to the two objectives of the thesis, along with theoretical and practical implications. Finally, the limitations of this thesis and directions for future research are discussed.

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## **PART II**

The Emergence of HPWS

Components and Characteristics

## 2. High – Performance Work Systems (HPWS)

### 2.1 The Emergence of HPWS

Capelli and Neumark (2001) trace the popularity of the term ‘High Performance’ to an influential public report entitled “*America’s Choice: High Skills or Low Wages! Commission on the Skills of the American Workforce, 1989*”. This report, highly critical of ‘Taylorist’ work organization and mostly concerned about the fate of jobs in the United States (US), highlighted the importance of investing in a so-called ‘high-performance work organization’ along with investing in higher employee skills (Boxall and Macky, 2009, p. 3). A few years later, the need for US organizations to steer the wheel towards a high performance work environment became evident by the book ‘*The New American Workplace*’, published by Appelbaum and Batt (1994). Specifically, Appelbaum and Batt (1994) argued that US firms needed to find their own version of the sort of advanced work systems seen in Japan (lean production), Sweden (socio-technical systems), Germany (diversified quality production) and Italy (flexible specialization). Overall, and despite these first signs towards the emergence of the HPWS in the US context, the question still remains. How did these systems occur? In addition, what factors took place forcing the US manufacturing industry to adopt such evolutionary HR practices? Next, we will try to respond to these questions.

Since the 1930s, there was a long tradition of interest in how to make production jobs more motivating and how to enhance employees’ commitment (Boxall and Macky, 2007). However, the actual interest in the quality of work-life programs (e.g., employees’ involvement regarding the conditions of the workplace that affect them) developed in the 1970s in response to concerns about poor morale that, in turn, contributed to declining productivity (Capelli and Neumark, 2001). Moreover, during the first years of the same decade, management in the US came across with the growing developments (e.g., quality and price) of other nations,



particularly the Japanese. Specifically, the rise of the Japanese manufacturing and mainly the introduction of management techniques such as improved rates of innovation; enhanced product quality; and reduced production costs, improved their competitive advantage, shifting the trade balance in favor of Japan (Ebrahimpour, 1988). As a result, some elements of western manufacturing simply disappeared, while it became obvious that focusing solely on the marketing skills was not a sufficient recovery method. To survive, US manufacturers had to change their production systems and grow their reputation for quality and value (Boxall and Macky, 2007).

Taking the preceding discussion into consideration, and despite the lack of the US manufacturing competitive advantage, references on redesigned work practices appeared to be essentially zero as of the late 1970s, and very low as of the early 1980s. Indeed, the first widely published material examining whether poor work practices contributed to low morale took place in 1974 by O'Toole (1974), while the first arguments for redesigning work tasks based on employee's involvement came about three years later (e.g., Cummings and Malloy, 1977). In summary, the overall interest in Japanese management practices by the US lagged the rise of Japanese import penetration by almost a decade. Indeed, the popular books exposing the apparent advantages of Japanese practices did not appear until the 1980s (e.g. Ouchi, 1981; Pascal and Athos, 1981; see also Capelli and Neumark, 1999).

Taking a look at these books, Ouchi (1981) mentioned that Japanese organizations were characterized by '*lifetime employment, slow evaluation and promotion, non-specialized career paths, implicit control mechanisms, collective decision making, collective responsibility, and holistic concern for employees*'. In contrast, features of American organizations included '*short term employment, rapid evaluation and promotion, specialized career paths, explicit control mechanisms, individual decision making, individual responsibility, and segmented concern for workers*' (Keys and Miller, 1984, p. 346). Similar to Ouchi (1981), the book of Pascale and

Athos (1981) portrayed the Japanese as masters of the soft S's of management, namely *staff, skills, and style*, while American managers were thought to be less effective because they used largely the hard S's of management's practices, namely *strategy, structure, and systems* (Keys et al., 1994, p. 374). Despite these differences between Japanese and US manufacturing organizations, the general belief of these two books was that Japanese management practices were not culture bound. Therefore, modified elements of the process could be successfully applied by US firms (Keys et al., 1994, p. 374).

Practically, the Japanese success was first evident in the automobile industry. However, US companies did not begin any serious attempts to learn and adopt the Japanese practices until well into the 1980s, when they actually lacked behind in terms of efficiency and productivity. In particular, US auto makers started to believe that these Japanese practices could work in the US when Toyota began operating the New United Motors Manufacturing, Inc. (NUMMI) facility with General Motors in 1985 (Capelli and Neumark, 1999). Thus, the western firms made serious efforts to reform their production systems by adopting Japanese 'lean production' principles. In other words, they abandoned the 'Fordist' operations management (referring to low-discretion, control-focused work systems) in favor of work systems that had the ability to increase the involvement of production workers and raise their skills and incentives (MacDuffie, 1995). Boxall and Macky (2007) argued that the interest in these systems was a result of a major change in production systems in those parts of western manufacturing - such as steel making and car manufacturing - where the deskilling of production work took a strong hold, as mass production started to develop. In these manufacturing contexts, the need to change the current - at the time - work systems led to a new model, characterized by employees' high involvement, as was the case in the Japanese management practices. Overall, the initial interest in these alternative management practices focused mainly on concepts such

as job rotation, teamwork, and practices that supported greater employee involvement (especially training and employment security).

In line with the previous paragraph, Godard (2001) and Godard and Delaney (2000) presented some additional facts regarding the adoption of the Japanese style HR practices by US. Specifically, Godard (2001) argued that the high-performance thesis underpinning the adoption of these alternative work practices had been developed at a time when unions in the United States were severely weakened, not to mention that there was little prospect for labor law reforms that could reverse this weakness. As a result, it was believed that these alternative work practices could improve the quality of working life for employees, yielding at the same time performance gains for employers. In addition, the main benefit concerned the fact that their implementation required few institutional changes (p. 777). Godard and Delaney (2000), in turn, argued that the root of the notion behind the high-involvement systems was the belief that the arising conflicts between workers and managers could be resolved by adopting appropriate policies and practices, such as better communication systems; more humanistic work designs; and more participatory decision processes. In other words, this new approach viewed management as the primary actor in the employment relationship, while the adoption of appropriate managerial practices was the mean of producing gains for both parties. In summary, Godard and Delaney (2000) conclude that the new approach places less emphasis on interest conflicts in organizations and more on 'mutual gains'. In addition, it assumes a less prominent role for collective bargaining and a greater role for direct employee participation and problem-solving.

The first wave of research focusing on the actual relationship between Japanese-influenced work practices (e.g., quality circles) and organizational performance (e.g., increased productivity) was published by Katz et al. (1983) and Katz et al. (1985). Next, Kochan et al. (1986) were the first researchers presenting the new paradigm's initial thesis. In their work,

they analyzed the new changes in Industrial Relations (IR) practices. As opposed to the 'job control' model of unionism which was dominant in the postwar era, the new model was characterized as more cooperative and participative on the part of employees. In particular, the new model of management included many work and HRM innovations, including flexible work assignments; cross-training and team work sustained by some form of performance-based pay; formal employee participation; and supportive HRM policies such as job security (Godard and Delaney, 2000, pp. 483-484).

Following the previous studies of Katz et al. (1983, 1985) and Kochan et al. (1986), the most influential research regarding the impact of the new alternative work practices was published by Womack et al. (1990), who provided evidence of the superiority of Japanese assembly plant operations in terms of quality and productivity. Later, MacDuffie (1995) examined the same cross-sectional data more rigorously and found that these new work practices, in combination with flexible production techniques, led to higher quality and lower hours of labor per unit of output. As a result, the introduction of these practices expanded considerably in the early 1990s, whereas by 1992, they were more common within individual establishments than they were five years earlier anywhere within entire corporations (Capelli and Neumark, 1999, p. 28).

Overall, the preceding paragraphs provide a detailed examination of the historic evolution of the Japanese style alternative work practices, today known as High Performance Work Systems (HPWS), which dates back to their birth in the Japanese context, and ends up to their adoption by the US manufacturing sector. In a nutshell, the emergence of these systems can be depicted in a just few steps as described by Iverson et al. (2008). According to these authors, the new systems of HR practices occurred due to several major changes in the work environment. To begin with, the successful transformation of Japanese manufacturing occurred through a new way of managing employees. As a result, the US manufacturing industry, in the

face of the growing threat from overseas (mainly Japan) adopted and implemented these alternative management practices. Thus, the HPWS emergence was in part a response to the increasingly competitive forces of the global environment. Secondly, it was obvious at the time that the so far traditional sources of competitive advantage (e.g., price, product, quality, and technology) could be easily imitated by competitors. As a result, the new alternative management practices gained significant importance. Indeed, by focusing on the HRM department, organizations could react faster to the changing environment and be more flexible in shifting internal resources and processes. Therefore, the emphasis on the strategic role that HRM was about to play, had its share to the HPWS development. Finally, in the late 1980s there was the need for Human Resource Management to move beyond the ‘Tayloristic’ approach, according to which employees and their skills were neither valued nor developed. Similarly, the ‘command and control’ way of management started to decline, and as a result, employees were managed more efficiently and treated, finally, as a source of competitive advantage. Thus, Human Resources increased its value by moving from a ‘*guardian of employees to a value generating strategic partner within the organization*’ (p. 394).

## 2.2 Characteristics of a High – Performance Work System (HPWS)

As was mentioned in the introduction of the thesis, HPWS can be defined as ‘*a specific combination of HR practices, work structures, and processes that maximizes employee knowledge, skill, commitment, and flexibility*’ (Bohlander and Snell, 2007). In line with the latter definition, many researchers attributed the significance of the HPWS approach to the characteristics it entails.

To begin with, Becker and Huselid (1998) suggested that first, HPWS has the ability to link the firm’s selection and promotion decisions to validated competency models. Second, it is the basis for developing strategies that provide timely and effective support for the skills demanded

to implant the firm's strategies. Third, it enacts compensation and performance management policies that attract retain, and motivate high-performance employees.

To continue with, the work of Appelbaum et al. (2001) represents one of the most important and highly cited empirical studies across the HRM literature review. According to these authors, high performance work systems are characterized by three components. First, a work organization that provides employees with the **opportunity** for direct participation in operational decisions. This first characteristic refers to a more participatory organization of work. Specifically, the gathering and processing of information is decentralized to non-managerial employees who use this information to solve problems and make operational decisions. In other words, it is about sharing power on the shop floor. Therefore, coordination and communication among employees replace many of the hierarchical interactions that occur in a traditional work organization. Second, these systems include human resource practices that increase workforce **skills**. These skills need to be increased since firms share business and financial information with employees, not to mention that front-line workers are expected to be knowledgeable about the firm's products and markets. Moreover, workers meet and interact with customers and they need to have a deep understanding of their own organization and of the customers' needs. Finally, the third component characterizing a HPWS includes the creation of incentives for workers to **participate** effectively.

Similar to the Appelbaum et al. (2001) study, Lepak et al. (2006) suggested that high performance work systems, regardless of their strategic objectives, comprise three distinct HR policy domains that are each instrumental in the composition and effectiveness of HR systems. The first HR policy focuses on employee knowledge, skills, and abilities. Specifically, it is suggested that HPWS impacts directly employees' performance by influencing these characteristics. The second HR policy focuses on managing employee effort and motivation. Specifically, these HR systems influence directly and indirectly employees' effort and

motivation to perform by shaping their climate perceptions, and by providing employees direct incentives and rewards to work towards certain work roles. Finally, the third HR policy focuses on employees' opportunities to contribute by using their own skills.

Finally, Bohlander and Snell (2007) highlighted four basic fundamental principles or characteristics comprising the HPWS construct, namely 'shared information', 'knowledge management', 'performance-reward linkage' and 'egalitarianism'. In more depth, 'shared information' suggests a shift in organizations from the 'command and control' management style towards a more focused one based on employee commitment, improving thus the relationship between employer and employee. Therefore, when the information sharing culture is created, employees are more willing to satisfy the organization's goals. 'Knowledge development' is similar to the 'information sharing' principle, since HPWS depends on people possessing greater knowledge and skills. Moreover, 'performance-reward linkage' suggests that the connection between rewards and performance should motivate employees to pursue outcomes mutually beneficial for themselves and the organization. Finally, 'egalitarianism' refers to the notion that the status and power differences between employees and employers, and labor unions should be replaced by more cooperative approaches to managing work, as productivity can be improved when people once worked in isolation from one another begin to work together.

In summary, and based on the preceding definition and characteristics of high performance work systems, their usefulness can be explained by the argument that these systems enhance employees' skills, commitment, and productivity in such a way that employees become a source of sustainable competitive advantage (Data et al., 2005, p. 136). Indeed, it can be suggested that a wide variety of outcomes can be achieved through high performance work systems regarding either employee concerns (such as quality of work life issues and job security) or competitive challenges (such as performance, productivity and profitability). Overall, the main

idea is that through HPWS organizations can create a sustainable competitive advantage through their human resources (people), as they provide their employees with the opportunity to develop competencies that are valuable, rare, difficult to imitate and organized (Bohlander and Snell, 2007).

At this point, it should be noted that the term High Performance Work System (HPWS) is used interchangeably through the HRM literature with other similar terms, such as High Involvement Management (HIM; Lawler, 1986) and High Commitment Management (HCM; Walton, 1985). Sung and Ashton (2005) presented additional terms, including ‘High Performance Organizations’ (Lawler et al., 1998; Ashton and Sung, 2002) or ‘High-Involvement Work Practices’ (Wood et al., 2001). Taking into consideration that these alternative terms are used interchangeably through the HRM literature, it is deemed necessary to clarify the matter.

## 2.3 High Commitment Management (HCM) and High Involvement Management (HIM)

The first variation of the HPWS terminology concerns the so-called ‘High Commitment Management’ (HCM), theorized by Walton (1985). As the term implies, this model focuses on enhancing employees’ commitment to the organization, while creating the necessary conditions to encourage them to identify with the goals of the organizations and to exert effort to achieve them. Thus, the primary goal of HCM moves away from the typical ‘control and compliance through rules, regulations, and monitoring’ in an effort to decrease costs and increase efficiency (Boxall, 2012, p. 173; Zacharatos et al., 2005, p. 77). Wood and de Menezes (1998, pp. 487-488) also referred to the HCM approach suggesting that it ‘*aims at eliciting a strong commitment to the organization, so that behavior is primarily self-regulated rather than controlled by sanctions and pressures external to the individual, and consequently relations*



*within the organization are based on high trust*'. Therefore, employees are highly involved to the organization, and most importantly, they recognize its goals.

The second variation of the HPWS terminology concerns the 'High Involvement Management' (HIM), theorized by Lawler (1986). This term moves away from the 'Tayloristic' job design / approach. Specifically, it refers to the efforts made to enhance worker responsibilities and authority, and is associated with improvements in skill development and incentives to participate (Boxall, 2012, p. 173). Thus, High Involvement Management concentrates on empowering employees through increased information flows and devolution of decision making power, leading to greater productivity (Zacharatos et al., 2005, p. 77). Historically, Lawler's (1986) theory of High Involvement Management was very helpful, mainly because it revealed that something was changing towards the workers' interest. Indeed, Lawler (1986) highlighted a shift to the degree to which production workers were involved in and empowered to make decisions on all issues affecting their work quality and output. This led to changes in practices that enhance employees' skills (recruitment and training) and commitment (team and company based compensation; see Boxall and Macky, 2007).

As can be evident by the previous definitions, at first glance both terms (HCM and HIM) are very similar to each other, as well as to the HPWS approach. As a result, although the term High-Performance Work Systems has been used to characterize the new way of managing employees (Zacharatos et al., 2005, p. 77), many researchers use the two preceding notions (HCM and HIM) as being the same and identical terms with the HPWS concept. However, it should be underscored that HPWS not only encompasses both the high-commitment and involvement elements, but it is also broader in scope by emphasizing the competitive advantage gained by such human resource practices (Zacharatos et al., 2005, p. 77). Indeed, and following the Boxall and Macky (2009) empirical work, HCM and HIM are 'less loaded' terms than the notion of HPWS. As these researchers argue, the assumption that the resulting management

practices from these two models will necessarily lead to performance enhancement cannot be valid. Although this might happen in specific contexts, it cannot be generalized across all cases. Consequently, these two terms should not be regarded as equivalent to HPWS.

An additional point that should be underscored in highlighting the HPWS superiority over using the terms HCM and HIM, is the arising question of whether a High Involvement Management system implies the co-existence of the High Commitment Management system. In reality, firms making high investments in high-involvement work practices will benefit from higher economic performance in conditions of low labor turnover. Moreover, when such firms are affected by tight labor markets, they will have to take measures of employee commitment in order to achieve low labor turnover. As a result, it could be suggested that a decision to adopt a High Involvement Management approach implies employment practices fostering high skills and commitment. In contrast, in situations where a HCM is being followed, higher employee commitment can be pursued entirely through employment practices rather than work practices. For instance, employee retention could be enhanced through higher pay and loyalty bonuses, through improving perceptions of job security, through policies which privilege redeployment over redundancies, through enhancing perceptions of procedural justice, etc. (Boxall and Macky, 2009, pp. 10-11). In summary, and providing an answer to the initial question, although a HIM might imply the co-existence of HCM, the opposite is not necessarily the case.

## 2.4 Components of a High-Performance Work System (HPWS)

Overall, there are two significant issues regarding the HPWS approach. The first one, as was analyzed in the previous sub-section, concerns the different 'labels' that are used interchangeably to describe the same phenomenon (e.g., HPWS, HCM, HIM). As a result, these additional definitions add to the confusion (see Sung and Ashton, 2005). The second issue concerns the lack of a generally accepted definition of HPWS, and as a result, the lack of a

standard list of the features or components that such a system should entail (Armstrong, 2009, p. 235). Thus, there is still no agreement neither on the exact practices that constitute a coherent HRM system (Delery, 1998) nor on how to measure the HR practices (Paauwe, 2009, p. 136). However, some researchers tried to provide an explanation to the lack of a standard list of components forming the HPWS construct. For instance, Becker et al. (1997) noted that ‘organizational high-performance work systems are highly idiosyncratic and must be tailored carefully to each firm’s individual situation to achieve optimum results’. Similarly, Sung and Ashton (2005) stated that it would be wrong to seek one ‘magic list’, as it all depends on the context. Boxall (2012) concluded that there seems to be a great diversity in the paths that managers follow to pursue higher performance, not to mention the existent variations across and within organizations as management applies different types of HR systems for workforce groups of different value. Thus, it is not possible to generalize HR practices from sectors like capital-intensive manufacturing or professional services (characterized by high pay and HR investment levels) to mass, standardized services (characterized by lower average pay and HR investment levels).

On the other hand, and taking into consideration the latter limitations, several researchers attempted to present the basic components of HPWS. To begin with, Appelbaum et al. (2000) argued that the basic elements of a high performance work environment should be focused around three ‘bundles’ of practices, namely abilities, motivation and opportunities to participate.

- Ability: This bundle includes staffing practices, more rigorous selection and recruitment procedures, and training and development (e.g., formal training or structured on-the-job training in technical skills, problem solving skills, and team building skills). All together can enable a plant to obtain employees with the appropriate knowledge, skills, and abilities to function effectively in a HPWS.

- Motivation: According to this bundle, firms can provide three main types of incentives to motivate workers to expend discretionary effort, namely financial or extrinsic rewards; intrinsic rewards; and a long-term stake in the company (employment security).
- Opportunity to participate: The final bundle includes workers' autonomy and control over decisions affecting work tasks; communication between front-line workers, between front-line workers and managers in their work group, as well as between workers, managers and experts in other parts of the organization; self-directed teams; and participation in problem-solving or quality improvement teams.

Similar to Appelbaum et al. (2000), Lepak et al. (2006) suggested that HR systems comprise three distinct HR policy domains that each is instrumental in the composition and effectiveness of HR systems.

- The first HR policy domain focuses on employee knowledge, skills and abilities. These include recruitment practices (e.g., extensive recruitment); selection policies (e.g., extensive interviews); and training policies (e.g., on-the-job and off-the-job training).
- The second HR policy domain focuses on managing employee effort and motivation. These include job security policies; performance management policies (e.g., formal evaluation); compensation policies (e.g., merit-based pay); and incentives and rewards policies (e.g., contingent pay).
- The third HR policy domain focuses on employees' opportunity to contribute. These include involvement policies (e.g., participation, information sharing); job design policies (e.g., job rotation); and teams' policies (e.g., quality-circles, off-line teams).

Shih et al. (2005) further suggested that HPWS should include the following components.

- Job infrastructure. This refers to workplace arrangements that equip workers with the proper abilities to do their jobs, provide them with the means to do their jobs, and give them the motivation to do their job. It should be noted that these practices must be combined to produce their proper effects.
- Training programs to enhance employee skills, knowledge and ability.
- Information sharing and worker involvement mechanisms to understand the available alternatives and make correct decisions.
- Compensation and promotion opportunities that provide motivation to encourage skilled employees to engage in effective discretionary decision making in a variety of environmental contingencies.

Moving a step further, Boselie et al., (2005) identified 26 different practices that were used in the different empirical studies they examined. Among these practices, the top four were training and development; contingent pay and reward schemes; performance management (including appraisal); and careful recruitment and selection.

Sung and Ashton (2005) defined HPWS as a set of 'bundle' of 35 complementary work practices covering three broad areas, namely high employment involvement work practices (e.g., self-directed teams, quality circles, and sharing company information); human resource practices (e.g., sophisticated recruitment processes, performance appraisal, mentoring and work redesign); and finally reward and commitment practices (e.g., financial rewards, family-friendly policies, job rotation and flexi hours).

Moreover, Thompson and Heron (2005) suggested that HPWS should include practices such as information sharing; sophisticated recruitment; formal induction program; off-the-job training; autonomous work teams; continuous improvement teams, and problem-solving

groups; interpersonal skill development; performance feedback; involvement; and team-based rewards, employee share ownership scheme, and profit-sharing scheme.

Last but not least, Bohlander and Snell (2007) argued that although it may be premature to claim that there is a foolproof list of ‘best practices’ that can be implemented by every organization for every work situation, some clear trends can be recognized incorporating HR practices that encourage skill development and employee involvement. Hence, such practices include staffing practices (e.g., recruitment and selection); training and development (e.g., problem solving and interpersonal skills, cross-training); and compensation packages (e.g., employee incentives, profit-sharing, skill-based pay plans).

To conclude, and following the Ashton and Sung (2002) study, it should be noted that the practices may be more effective when grouped together in ‘bundles’. For instance, the isolated use of ‘quality circles’ HR practice might not be as effective as when the practice is supported by wider employee involvement or empowerment practices. Indeed, in a thorough analysis, the EEF in cooperation with CIPD (CIPD/EEF, 2003) categorized HPWS practices into four categories, namely employee autonomy and involvement in decision making; training, development and support for employee performance; rewards for performance; and sharing of information and knowledge. As was underlined in this work, the four dimensions of HR practices can be achieved by introducing the ‘bundles’ of practices, rather than individual practices. Following a similar same line of thinking, Godard (2004) suggested that high-performance work practices are complementary and interact with each other. As a result, their true potential is not fully realized unless they are adopted in combination or as part of a ‘system’, and integrated or matched to a particular strategy. As was presented in the introduction of the thesis (p. 8), the ‘systems’ versus ‘bundling’ approaches attracted recently the attention of many researchers and academics. More information regarding these two approaches will be provided in the seventh part of the thesis.

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## **PART III**

### HRM and Performance

## **3. The Relationship between HRM and Performance**

### **3.1 Introduction**

Since 1995 and the HPWS emergence, a rising wave of interest was captured in examining the relationship between HRM and performance (e.g., Arthur, 1992; Huselid, 1995; Delery and Doty, 1996). Ten years later, two major reviews of the HRM research (Boselie et al., 2005; Combs et al., 2006) confirmed that the large majority of published studies demonstrated a positive association between HRM and performance. However, both of these studies concluded that the findings provided evidence of an association rather than causation. In addition, both of these reviews were unable to provide an explanation of why there was such an association (Guest, 2011, p. 3).

In line with the previous paragraph, the first arising question asks what exactly is performance and how can it be measured? As Armstrong (2009, p. 136) notes, the concept of performance covers both ‘what’ has been achieved and ‘how’ it has been achieved. Regarding the ‘what’, firm performance can be measured in a number of different ways, including a reference to key performance indicators, which usually include financial results (profitability) or productivity. Measuring the ‘how’, on the other hand, is more difficult as it relies extensively on qualitative assessments of organizational capability or effectiveness. Organizational capability is defined as the capacity of a firm to function effectively in order to compete and deliver results, whereas organizational effectiveness is defined as the capacity of an organization to achieve its goals by making effective use of the resources available to it.

As can be evident by the previous paragraph, and before citing some of the most empirical studies linking HPWS with organizational performance across different sectors, it is important to acknowledge the considerable progress that has been made in theory and research through

the years. Taking the preceding discussion into consideration, our analysis will be based on the identification of several phases, as these have been demonstrated by Guest (2011).

## 3.2 The first phase – The beginnings

According to Guest (2011), the first phase concerns the development of theory and research on the association between HRM and performance that occurred mainly in the 1980s. During this period, a series of articles and books (e.g., Fombrun et al., 1984; Miles and Snow, 1984; Guest, 2011) began to appear linking business strategy to HRM. At the same time, other researchers (e.g., Walton, 1985) highlighted the need for a shift from control to commitment as the bases for management of people at work, while in the late 1980s' and early 1990s' the issue of 'strategic fit' emerged, underscoring the need to integrate the strategic view ('external' fit) with the organizational behavior ('internal fit') in an effort to produce a conceptual perspective that forms the basis of contemporary HRM (see Beer et al., 1984; Schuler and Jackson, 1987; Guest, 2011, p. 4).

Overall, taking this first phase into consideration, and before moving to the second phase, it will be useful for the better understanding of the present thesis to introduce the Strategic Human Resource Management (SHRM) into the discussion. Indeed, the examination of the High Performance Work Systems fall exactly into the SHRM field of study. Therefore, the first arising question concerns the definition of SHRM. What exactly is SHRM? How can it be defined, and in addition, what are its main aims and characteristics?

### 3.2.1 Strategic Human Resource Management (SHRM)

Strategic Human Resource Management (SHRM) has been defined as *'the integrated set of practices, policies and strategies through which organizations manage their human capital, that influences and is influenced by the business strategy, the organizational context and the*

*socio-economic context*' (Martin-Alcazar et al., 2005, p. 651). Overall, Armstrong (2009, p. 29) states that the fundamental aim of SHRM is to generate organizational capability by ensuring that the organization has the skilled, engaged, committed, and well-motivated employees it needs to achieve sustained competitive advantage (see also Gooderham et al., 2008). According to Armstrong (2009), SHRM has two main objectives. The first objective concerns the vertical integration between HR strategies and business strategies, and the horizontal integration of HR strategies. The second objective highlights the effort to balance the business needs of an organization with the individual needs of the employees through the development and implementation of coherent and practical HR policies and programs (see also Schuler, 1992), taking into account the changing context in which the firm operates (see Dyer and Holder, 1998). Last but not least, SHRM is based on two key concepts, namely the resource-based view and the strategic fit (Armstrong, 2009, p. 30). Next, we analyze these two concepts in depth as both of these theories have contributed significantly to development of the relationship between HPWS and organizational performance.

### *3.2.1.1 The resource-based view (RBV) of the firm*

The resource-based view (RBV; Barney, 1991) of the firm underpins to a large extent the philosophy and approaches to strategic HRM. According to this theory, the range of resources in an organization - including its human resources - has the ability to produce a unique character and to create competitive advantage (Armstrong, 2009, p. 30). Indeed, Barney (1991) suggested that the competitive advantage arises in two ways. First, when firms within an industry are heterogeneous with respect to the strategic resources they control, and second, when these resources are not perfectly mobile across firms. However, the main interest of the RBV lies in the notion of sustained competitive advantage. According to Boxall (1996, p. 65) *'there is a distinction between a competitive advantage which a firm enjoys and which others*

will be able to copy, and a **sustained competitive advantage**, a characteristic which rivals find themselves unable to compete away, despite their efforts'. Overall, the RBV suggests that creating sustained competitive advantage depends on the unique resources and capabilities that a firm brings to competition in its environment. Specifically, for the creation of a sustainable competitive advantage, resources should be *rare, valuable, imitable, and non – substitutable*.

Taking into consideration the previous paragraph, and following Delery (1998), the RBV approach essentially shifts the focus from the external environment of the firm to its internal resources. Indeed, as Boxall (1996) noted, the RBV's goal is to create more intelligent and flexible firms than their competitors by focusing on the enhancement of the human or intellectual capital of the firm. Boxall and Purcell (2003) later argued that a resource-based SHRM has indeed the ability to create human resource advantage by developing strategic fit between resources and opportunities. Hence, the focus shifts clearly on the employees of an organization (Mueller, 1996).

As can be expected, the HR practices or a system of HR practices (such as HPWS) have a significant role to play in the creation of sustained competitive advantage. For instance, Wright et al. (1994, p. 318) concluded that although HRM practices themselves cannot be a source of a sustainable competitive advantage, they may play an essential role in developing a sustained competitive advantage through the development of the human capital pool, and through affecting its behavior. In addition, Delery (1998) argued that the HRM practices of a firm have the potential to lead to competitive advantage not only through developing a unique and valuable human capital pool, but also by providing firms with both increased fit and flexibility. Becker and Gerhart (1996) noted that a properly developed system of HR practices (such as HPWS) can be an 'invisible asset' that creates value when embedded in the operational systems of an organization. Specifically, it can be difficult for human resource strategies to be imitated for two main reasons, namely '*causal ambiguity*' and '*path dependency*'. The first term refers

to the difficulty in understanding the precise mechanisms by which the HR practices and policies generate value, whereas the second term suggests that HR systems are path dependent, since they consist of policies that are developed over time and cannot be simply purchased in the market by competitors. Moreover, Barney and Wright (1998) argued that systems of HRM practices that create 'synergistic' effects are indeed a source of a sustainable competitive advantage, as they can be rare, valuable, and, contrary to physical and organizational capital, difficult to identify and copy due to the interrelatedness of the individual HRM practices in the interdependent HRM system (Barney and Wright 1998, p. 40). Hence, it is the internal fit between HRM practices that may provide a significant source of sustainable competitive advantage.

Overall, the significance of the resource-based view of the firm lies on the fact that it highlights the importance of a human capital management approach to HRM, and provides the justification for investing in people through resourcing, talent management and learning and development programs, as a means of enhancing organizational capability (Armstrong, 2009, p. 31).

### *3.2.1.2 Critiques to the resource-based view (RBV)*

The RBV seems to be a promising theory suggesting ways of creating sustainable competitive advantage through the effective use and development of human resources. On the other hand, the RBV has also been highly criticized.

To begin with, Oliver (1997) stated that the RBV often neglects the social context within which resource selection decisions are embedded (e.g., firm traditions, network ties and regulatory pressures), or in other words the institutional settings, which are particularly crucial from an HR point of view. Moreover, Wright et al. (2001) noted that no attempt had been made to test whether HR practices are path dependent or actually difficult to imitate. As a result, the



RBV theory lacks verifiable quantitative supportive data. Moving forward, Paauwe and Boselie (2003) stated that the RBV approach does not meet the standards for a true theoretical perspective and contains several tautological elements. Indeed, Priem and Butler (2001) noted a methodological problem in the statement that value and rarity of resources lead to competitive advantage, mainly because both the independent (valuable and rare organizational resources) and dependent variables (competitive advantage) are defined in terms of value and rarity. Thus, the RBV statements cannot be tested empirically. Furthermore, Becker and Huselid (2006) criticized the RBV concept for placing emphasis on recognizing existing strategic resources as opposed to developing strategic assets. Hence, they suggested that the link between the HR architecture and most RBV concepts remains too abstract and too indirect so as to contribute to the 'black box' (see Messersmith et al., 2011) between HRM and firm performance. Last but not least, another important criticism concerns the fact that the RBV '*operates at a very general level of abstraction*' (Messermisth et al., 2011, p. 1107). As these authors suggest, although the assertion that people are a source of competitive advantage could certainly be plausible, it is not demonstrative. Thus, the RBV approach fails to demonstrate clear evidence regarding the impact of systems of HR practices (such as HPWS) on performance.

As a conclusion, in an effort to reconcile the positive and critical arguments regarding the RBV, it should be underscored that the original RBV as expressed by Barney (1991) referred to all the strategic resources associated with a firm, and not just human resources (Armstrong, 2009, p. 31). As Muller (1996) pointed out, human resources have to be seen within the context of a firm's broad array of resources. In other words, although employees are central for a firm to retain its valued product reputation, this also works vice versa; a highly reputable company will find it easier to attract highly qualified employees.

### *3.2.1.3 Strategic fit*

The second concept of SHRM, strategic fit, includes two dimensions, namely vertical and horizontal fit. The first dimension, vertical fit, entails the linking of human resource management practices with the strategic management process of the organization. The second dimension, horizontal fit, emphasizes the coordination or congruence among the various human resource management practices (Wright and McMahan, 1992).

## 3.3 The second phase – Empiricism

The second phase took place in the 1990s, when the first set of empirical studies examining the relationship between HRM and performance began to appear. Indeed, the study of Huselid (1995) can be regarded as the hallmark of the HPWS research, since it is the first published study based on a national sample of nearly one thousand US firms that examined the links between systems of high performance work practices and firm performance. The results suggested that these practices had an economically and statistically significant impact on both turnover and productivity, as well as on short- and long-term measures of corporate performance, although no support was provided for a relationship between HPWS and competitive strategy. Furthermore, Arthur (1992) tested the strategic HR proposition that specific combinations of policies and practices are useful in predicting differences in performance and turnover across steel ‘minimills’. The findings suggested that the mills with ‘commitment’ systems had higher productivity, lower scrap rates, and lower employee turnover than those with ‘control’ systems. In addition, it was found that the HR system moderated the relationship between turnover and manufacturing performance. Similar to Arthur (1992), Ichniowski et al. (1997) investigated the productivity effects of innovative employment practices using data from a sample of 36 homogeneous steel production lines owned by 17 companies. The findings showed that lines using a set of innovative work

practices (e.g., incentive pay, teams, flexible job assignments, employment security, and training) achieved substantially higher levels of productivity than did lines adopting the more traditional approach (e.g., job definitions, strict work rules, hourly pay with close supervision). Overall, their findings were consistent with the theoretical models highlighting the importance of complementarities among work practices. Moreover, Macduffie (1995), using data from a 1989-90 survey of 62 automotive assembly plants, provided support for two hypotheses. First, that innovative HR practices have the ability to affect performance not individually but as interrelated elements in "bundles" or system of practices. Secondly, these HR bundles contributed most to assembly plant productivity and quality when integrated with manufacturing policies under the 'organizational logic' of a flexible production system. Last but not least, Delery and Doty (1996) focused on the banking industry, and indicated that the HR practices may be even more important than was previously suspected. Indeed, Delery and Doty (1996) not only showed a positive association between some HR practices and organizational performance, but they also highlighted that fact that the relationship between some HR practices and organizational performance can be contingent on firm strategy.

### 3.4 The third phase – Backlash and reflection

In an effort to clarify some key conceptual issues, the third phase emerged. Indeed, some articles at the time (e.g., Dyer and Reeves, 1995; Becker and Gerhart, 1996) demonstrated that the so-far published studies used different HR practices, measured in different ways, while there were also concerns regarding the measures of performance used. Moreover, Delery and Doty (1996), taking into account the resource-based view (Barney, 1991) and the strategic fit argued that 'organizations adopting a particular strategy require HR practices that are different from those required by organizations adopting different strategies' and that 'organizations with greater congruence between their HR strategies and their (business) strategies should enjoy

superior performance'. As a result, and based on the previous arguments, there was a need for a sounder conceptual basis not only for determining the appropriate HR practices that should be used, but also for generalizability purposes.

Overall, and based on the terminology presented by Jackson et al. (1989), Brewster (1995, 1999) and Delery and Doty (1996), three different perspectives have been identified in the SHRM literature, namely the universalistic, the contingency, and the configurational perspectives (see also Gooderham et al., 2008; Guest, 2001; Capelli and Neumark, 2001). In addition, Martin-Alcazar et al. (2005) included an additional perspective, namely the 'contextual outlook'. Overall, each one of these perspectives emphasizes a specific dimension of the reality of SHRM, while all together reveal a spectrum that encompasses all possible approaches (Martin-Alcazar et al., 2005, p. 634). Next, we provide an overview of each perspective in detail.

### 3.4.1 The universalistic perspective

The universalistic perspective is the simplest approach in the analysis of HRM strategies, and suggests that some HR practices are better than others. Hence, all organizations should adopt these best practices. Overall, universalistic models analyze how certain isolated HR policies and individual 'best' practices are linked to organizational performance (Martin-Alcazar et al., 2005, pp. 634-635; Armstrong, 2009, p. 33).

One drawback of this theory is that it does not study either the synergic interdependence or the integration of practices, while the contribution of these practices to performance is analyzed only from an additive point of view. In other words, the universalistic perspective denies the fact that the different elements comprising the system could be combined in different patterns of practices equally efficient for the organization. Furthermore, this perspective lacks solid theoretical foundations. Finally, although the HRM - performance relationship can be

statistically significant by using this method, it overlooks the consideration of other crucial variables, constructs and relationships (Martin-Alcazar et al., 2005, p. 635).

### 3.4.2 The contingency perspective

The contingency perspective denies the existence of best practices that could lead to superior performance, and suggests that in order to be effective, an organization's HR policies must be consistent with other aspects of the organization (Armstrong, 2009, p. 33). Overall, the contingency relationships can be grouped into three categories. The primary contingency factor is the organization's strategy, which can be described as 'vertical fit'. The second category includes the organizational variables, such as size, technology, or structure, and internal political relationships. Finally, the third category includes the environmental factors external to the organization, such as the competitive, technological, macro - economical and labor context (Martin-Alcazar et al., 2005, pp. 635-636).

One drawback, similar to the universalistic perspective, is the fact that researchers tend to examine practices that are individually linked to performance and neither the internal synergic mechanisms nor the integration of practices is considered during the analysis (Martin-Alcazar et al., 2005, pp. 636-637). Moreover, Capelli and Neumark (2001) recognized another limitation of this perspective, stating that the combination of work practices and other contingencies that should be used and controlled for is not well defined.

### 3.4.3 The configurational perspective

The configurational perspective is a holistic approach that emphasizes the importance of the pattern of HR practices and is concerned with how this pattern of independent variables is related to the dependent variable of organizational performance (Armstrong, 2009, p. 33). Following the Martin-Alcazar et al. (2005, p. 637) study, this perspective argues that the HRM

system comprises a multidimensional set of elements that can be combined in different ways to provide a number of different configurations. In other words, the configurational models are defined under the principle of equifinality (Delery and Doty, 1996), which states that achieving the same business outcomes with different combinations of policies may be equally efficient for the organization.

In contradiction with the previous perspectives, the relationship between the configurational patterns and organizational performance is not linear. Thus, the HR function can be analyzed as a complex and interactive system. Finally, it should be underscored that the configurational and universalistic perspectives should not be confused. Indeed, and following Gooderham et al. (2008, p. 2044) *‘while the configurational bundle consists of holistic patterns of interrelated, synergistic practices, the universalistic bundle comprises single practices combined in an additive manner. The important lesson is that combining HR practices in a fashion that promotes internal consistency is a better approach to that of simply adding individual effects’*.

#### 3.4.4 The contextual perspective

The contextual perspective is applicable to different environments of all geographical and industrial contexts. Under this perspective, the SHRM concept is expanded to offer a complex explanation, not only based on its internal working and the achievement of business goals, but also based on its influence on the external and organizational context in which managerial decisions are made. Furthermore, this perspective reconsiders three aspects of SHRM, namely the nature of human resources, the level of analysis, and the actors in this organizational function. The nature of human resources implies that the SHRM function is no longer the exclusive responsibility of personnel specialists, but is extended to the rest of managers, especially at the line level. Regarding the level of analysis, the contextual approach proposes a

much broader scope, integrating the HRM system in the environment in which it is developed. Following the level of analysis, it is also necessary to reconsider the actors who participate in the human resource function. In this sense, the contextual model is enriched with the consideration of a broader set of stakeholders in the formulation and implementation of human resource strategies. These stakeholders may be not only internal but also external, and both influence and are influenced by strategic decisions. Thus, the mutuality of interests is considered as a necessary requisite for the maintenance of the firm's position in the long term (Martin-Alcazar et al., 2005, p. 638).

### 3.4.5 The 'best practice', the 'best fit' and the 'bundling' approaches

The previous paragraphs present the four most important theoretical perspectives that have been used across the SHRM literature in examining the relationship between HPWS and organizational performance. According to Armstrong (2009, p. 33), the universalistic, the contingency and the configuration perspectives provided the bases for what has become the most commonly used classification of approaches as advocated by Richardson and Thompson (1999), namely the 'best practice', the 'best fit', and the 'bundling' terms respectively. It should be noted, that Richardson and Thompson (1999) actually extended the work of Guest (1997) who classified the aforementioned perspectives as 'fit as an ideal set of practices', 'fit as contingency', and 'fit as bundles'. Next, we provide an overview of the 'best practice', the 'best fit' and the 'bundling' approaches, as these have been defined by Richardson and Thompson (1999).

#### 3.4.5.1 *The 'best practice' approach*

The 'best practice' approach is based on the assumption that there is a set of best HRM practices that are universal in the sense that they are best in any situation and for all types of employees,

and that adopting them will lead to superior organizational performance in all types of organizations (Armstrong, 2009, p. 33; Kinnie et al., 2005).

Taking into consideration the previous definition, Delery and Doty (1996) identified seven HR practices as ‘best practices’, including practices related to overall organizational performance; use of internal career ladders; formal training systems; results-oriented appraisal; performance-based compensation; employment security; employee voice; and broadly defined jobs. Similarly, Pfeffer (1998) presented a list of ‘best practices’ including employment security; selective hiring; self managed teams; high compensation contingent on performance; training to provide a skilled and motivated workforce; reduction of status differentials; and sharing information. Last but not least, Guest (1999) suggested that ‘best practices’ should include selection and careful use of selection tests to identify those with potential to make a contribution; training; job design to ensure flexibility, commitment, and motivation; communication to ensure that a two-way process keeps everyone fully informed; and employee share ownership programs to increase their awareness of the implications of their actions on the financial performance of the firm.

Similar to the universalistic perspective, the ‘best practice’ approach has also been highly criticized. For instance, Cappelli and Crocker-Hefter (1996) stated that the notion of a single set of best practices has been overstated, as every industry of firms tend to have very distinctive management practices. Purcell (1999) pointed out the inconsistency between a belief in best practice and the resource-based view. In particular, Guest (1999) underscored the paradox of the set of ‘best practices’ on the one hand, with the resource based view argument that only some resources and routines are important and valuable by being rare and imperfectly imitable. Finally, as Armstrong (2009, pp. 34-35) notes based on the contingency theory, it is difficult to accept the existence of a universal best practice. Specifically, what works well in one organization will not necessarily work well in another due to differences in the strategy, culture,



management style, technology or working practices. On other hand, Armstrong (2009) do acknowledge that the so-called ‘best practices’ can be used to inform decisions on what practices are most likely to fit the needs of the organization, taking into consideration the context of the organization. As Becker and Gerhart (1996) notes, perhaps it would be better to think of ‘good practice’ rather than ‘best practice’.

#### *3.4.5.2 The ‘best fit’ approach*

The ‘best fit’ approach, in line with the contingency theory, emphasizes that HR strategies should be congruent with the context and circumstances of the organization (Armstrong, 2009, p. 35; Kinnie et al., 2005). Overall, this theory suggests that those organizations whose HR policies and practices are aligned with the organizational context - taking into consideration the external factors of the environment in which they operate - will report superior performance. On the other hand, although this approach tends to assume that a particular response will always be superior, it does not specify the type of response or any class of responses (Guest, 1997). Finally, it should be noted that the ‘best fit’ has been documented across the HRM literature either as a ‘external fit’ (Pfeffer, 1994; Guest, 1997) or as a ‘vertical integration or fit’ (Delery, 1998; Armstrong, 2009, p. 35).

#### *3.4.5.3 The ‘bundling’ or ‘systems’ approach*

‘Bundling’ (MacDuffie, 1995) or ‘systems of practices’ (Delery and Doty, 1996) can be described as the development and implementation of several HR practices together so that they are inter-related and therefore complement and reinforce each other (Armstrong, 2009, p. 38; MacDuffie, 1995). Following Boxall and Macky (2009), it can be suggested that this type of fit entails complementarity between changes in HR systems and other strategic choices in the workplace. The issue of ‘complementarity’ (see also Guest, 1997) can be better illustrated with

an example. As Ichniowski and Shaw (1999) note, HR practices such as ‘problem-solving teams’ or ‘continuous improvement’ are features of the work organization of large Japanese manufacturers. However, by themselves it is unlikely to elicit worker’s participation in continuous improvement activities. As a result, such HR practices should be combined with ‘job security policies’. Otherwise, workers might fear that their productivity-improving might lead to job losses. In turn, ‘employment security’ can be complementary with practices such as ‘flexible job assignments’ if the broader scope is to reassign workers to more productive jobs in response to changes in product demand. What follows is that these ‘flexible job assignments’ will require more ‘training’ so as to provide workers with the skills needed. Finally, when the organization’s ultimate goal is employees’ long-term career and lower turnover, HR practices such as careful ‘employee selection’ and greater ‘employee voice’ are not only required but can also become more valuable as HR practices.

The ‘bundling’ approach has also been described by the terms of ‘internal fit’ (Pfeffer, 1994), ‘horizontal fit’ (Delery, 1998), and ‘horizontal integration’ (MacDuffie, 1995). Overall, ‘horizontal fit’ or ‘horizontal integration’ refer to the alignment of HR practices into a coherent system of practices that support one another. In other words, these notions deal with the internal consistency, and examine how HRM practices work together as a system to achieve organizational objectives. It should be noted that this horizontal notion focuses to the entire HRM system and not only on individual HRM practices (Delery, 1998).

Finally, and despite any positive effects that might arise of a ‘bundling’ approach, its main drawback concerns the question of what is the best way to relate different practices together, as there is no evidence suggesting that one bundle is generally better than another (Armstrong, 2009, p. 39). Indeed, Guest (1997, pp. 271-272) noted that the key issue in the ‘bundling’ approach is to determine which of these systems of practices is most effective. As can be obvious, there may be a number of possible combinations or configurations of practices which

will probably lead to high performance. However, although in principle this approach allows for some substitution, in practice certain clusters may consistently emerge, indicating the limited range of effective combinations.

### 3.4.6 Research and evidence of 'fit'

Taking all of the preceding approaches together, some empirical studies seem to support the 'internal' fit, others the 'external' fit, whereas some studies advocate towards the consideration of both approaches.

For instance, Guest (1997) concluded that there is consistently stronger support for the 'internal' fit model, suggesting that those organizations that use more high performance HRM practices report higher performance. Becker and Huselid (1998), similarly to Guest's (1997) findings suggested that the greater support that could be found in the literature concerned the 'internal' fit. In contrast, support for the 'external fit' hypothesis was much weaker. Following their main arguments, they concluded that if external fit was a source of competitive advantage, there would be a strong relationship between a firm's strategic choices and the nature of the HRM system. Pauwwe and Boselie (2005) criticized the 'external' fit, arguing that although many authors highlight the importance of the link between corporate strategy and HRM, there is no empirical data supporting this assertion. Similarly, Becker and Huselid (2006, p. 901) concluded that although the 'external fit' approach is important, the nature of that fit implies a generic relationship between the HR architecture and the broader competitive strategy, making it easier to be imitated by competitors. On the other hand, Boxall and Macky (2009) criticized the 'best practice' approach, arguing that work systems and employment practices vary significantly across occupational, hierarchical, workplace, industry and societal contexts. Therefore, any assertion around systems of best practices is false. In addition, they added, there

is no indication of the actual path that should be followed in the HRM implementation that might lead to superior individual, team or organizational performance.

In contrast, some studies tried to reconcile the 'best practice' and 'best fit' theories. For instance, Paauwe and Boselie (2005) argued that the debate between the two approaches represents two sides of the same coin, since both can be useful in exploring the HRM and performance relationship. In addition, they argued, although some practices can be universally applied and successful, the design of the HR practices depends on unique organizational contexts. Similarly, Becker and Huselid (2006) concluded that 'internal' or 'horizontal' fit and 'external' or 'vertical' fit should not be considered as independent constructs for two main reasons. First, 'internal' fit will have little strategic value without any prospect of improving the overall strategy execution. Secondly, if the HR architecture and its elements are focused on executing the strategic business process, then as a result, the architecture will necessarily incorporate the 'internal' fit. Sung and Ashton (2005) concluded that the primary emphasis should be placed to the 'external' fit between the HR practices and the business strategy, and then to the 'internal' fit among each HR practice. Moreover, Kinnie et al., (2005) also proposed the simultaneous incorporation of both internal and external fit. Specifically, these researchers noted that both of these approaches (internal and external fit) assume that the practices will be implemented as intended and will have the same effect on all employees. However, these assumptions are highly questioned, mainly because complex organizations might have different employee groups which may be managed through diverse sets of HR policies (see also Paauwe and Boselie, 2005), and because of strategic differences between firms in the manufacturing and service sectors. Thus, the general assumption is that the 'best fit' approach is too simple, and as a result, the focus should be placed on various patterns of practices, placing horizontal fit together with vertical fit.

Overall, most SHRM researchers today accept and adopt a combination of the contingency (best fit / external fit / vertical fit) and the configurational (internal fit / bundles / systems of practices) perspectives. Indeed, the main proposition is that different internally consistent HRM systems are effective for either different parts of the workforce or under different strategic considerations (Lepak and Snell 1999). Taking into consideration this combined perspective, it is clear that internal and external fit are in a constant interplay (Boxall et al., 2007, p. 387).

### 3.4.7 Internal fit and possible effects

In line with the ‘bundling’ approach, there are different ways in which HRM activities could ‘fit’ together. However, most researchers avoid describing how practices actually fit together or the consequences of a possible non-fit. Indeed, they simply rely on listing a number of ‘best’ HRM activities and suggest that these ‘best’ activities must fit together (Boxall et al., 2007, p. 393). Delery (1998), however, provided an in-depth overview of internal fit and the different relationships between HRM practices.

According to Delery (1998), the internal relationships between HRM activities can take many different forms, which can have a different effect on performance. The first form refers to simple ‘additive’ effects. According to this form, some HRM practices may have independent non-overlapping effects on the outcome, and may show an additive relationship with each other in producing a desired outcome. For example, two practices together could result in a greater level of an outcome in contrast to using either one alone. However, this outcome cannot extend the sum of the individual effects of each practice. It should be noted that HRM activities that simply have additive effects do not actually show ‘fit’ in the way that the term has been used in the SHRM literature. Despite this lack of ‘fit’, however, organizations

should combine such practices as their combination results in better performance than using either activity alone (Boxall et al., 2007, p. 393).

The second form refers to ‘interactive or synergistic effects’. This form is more consistent with the idea of ‘fit’, meaning that the effect of one activity is actually contingent on the presence of the other activities. In general, this ‘interactive or synergistic’ relationship happens when all practices together result in a substantially different effect than the sum of their individual effects would (see Capelli and Neumark, 2001, pp. 759-760, Boxall et al., 2007, p. 393). Overall, these effects can be further distinguished into three separate categories.

To begin with, ‘substitutable’ effects occur if the HRM activities are substitutes for each other in that each activity results in an identical outcome. It should be noted that having two activities that are substitutes results in outcomes equal to one practice alone. Thus, not only there is nothing to be gained from an organizational effectiveness perspective, but instead financial performance could eventually decrease due to the additional costs of having two HRM activities that yield identical outcomes (Boxall et al., 2007, p. 393-394).

To continue with, the two most interesting synergistic effects, and the ones most commonly associated with the internal fit perspective of SHRM include the positive synergistic effects or ‘powerful connections’ and the negative synergistic effects or ‘deadly combinations’ (Becker et al., 1997). Positive synergistic effects (‘powerful connections’) are those where the combination of two individual HRM activities has a more positive effect than the sum of each HRM activity’s individual effects. Hence, according to this first form, two practices may work together to enhance each other’s effectiveness. In this case the whole is greater than the sum of the parts. On the other hand, negative synergistic effects (‘deadly combinations’) refer to the situation where HRM activities actually work against each other, undermining each other’s effects. Hence, according to this second form, organizations that combine the two practices will have poorer performance as opposed to employing only one practice or the other.

Overall, based on the previous analyses regarding the different internal relationships between HRM activities (additive and interactive or synergistic effects), and in line with Armstrong's (2009, p. 39) argument regarding the drawback of the 'bundling' approach, it can be evident that the benefits arising from these approaches might not be as straightforward as one might think. Indeed, Boxall et al. (2007, p. 394) noted for example that it is unlikely that all HRM activities typically thought of as components of a 'high-performance work system' will have positive synergistic relationships with each other. In reality, some may have independent additive effects, while others may have the positive synergistic effects so often discussed. As a conclusion, they argued, it is not enough to simply say that a system of practices will have greater influence on performance as opposed to the individual practices. Thus, researchers should further specify which practices must fit with each other. In case of misfit, however, the negative consequences should be discussed.

#### 3.4.8 The complexity of internal fit and the HRM architecture

Overall, and despite researchers' attention to either the internal or external fit (or both), it is a very difficult task to actually design a consistent HRM system in which all HRM practices will be internally aligned, and which will reflect the policies and overall HRM philosophy of the organization. This difficulty is based on two main reasons (see Boxall et al., 2007, pp. 389 - 390).

The first reason concerns the fact that different environments and contextual settings require distinct sets of practices (e.g., Delery and Doty, 1996; Becker and Huselid, 1998). Although this problem seems to be more related to the external fit, it has been argued that it can also have significant implications for internal fit, as factors influencing the external fit could in turn influence the internal fit as well. Moreover, the various HRM goals might create complex and possibly paradoxical demands with regard to the HRM system. As a result, an organization's

flexibility regarding its HRM system can be essential for internal fit and long-term organizational success.

The second reason concerns the so-called HRM architecture. Kepes and Delery (2007) defined HRM architecture as ‘the HRM activities (philosophy, policies, practices, and processes) within different HRM systems that organizations must do today to manage and prepare themselves to develop the human capital required for achieving a competitive advantage in current or emerging opportunity areas’. As can be evident by this definition, there are several different HRM systems within an organization, while each one comprises distinct HRM activities (see also Schuler 1992; Becker and Gerhart 1996). In addition, Lepak and Snell (1999, 2002) argued that organizations have distinct HRM systems for different groups of employees, while each of these employee groups is unique and adds its own value to the organization. In more depth, Lepak and Snell (2002, p. 519) suggested that there are two principle drivers of employment, namely the ‘strategic value’ and the ‘uniqueness’ of the human capital. The ‘strategic value’ of human capital refers to its potential to improve the efficiency and effectiveness of the firm, exploit market opportunities, and neutralize potential threats. The ‘uniqueness’ of human capital refers to the degree to which it is rare, specialized and, in the extreme, firm-specific. Consequently, the human capital which is rare and inimitable by other firms in the labor market, provides a potential source of competitive advantage. Hence, and based on these two aspects of strategic value and uniqueness, different types of employment can be proposed, each characterized by specific HR configurations.

Taking the preceding paragraphs into consideration, it goes without saying that the complexities within the HRM architecture and the different HRM systems and activities extend considerably the ‘internal fit’ discussion. Hence, and since further exploration of the additional types of fit is beyond the scope of the present work, potential readers can seek additional information in Boxall et al. (2007, pp. 390 – 393).



### 3.5 The fourth phase – The conceptual refinement

The fourth phase focused on conceptual refinement, and specifically on the development of a better theory regarding HR practices, outcomes and the link between them. At this period of time, the resource-based view of the firm (Barney, 1991) was applied to HRM by various researchers (e.g., Lepak and Snell, 2002) as a basis for focusing investment on human resources. During this phase, Appelbaum et al. (2000) and Purcell and Hutchinson (2007) developed the well known AMO framework (Abilities, Motivation, Opportunities) which represented a universalist perspective. Overall, the significance of the AMO framework can be wrapped up in the proposition that HPWS can be associated with firm performance through the direct influence on three elements, namely employees' abilities (A), motivation (M), and opportunity (O) to perform. Specifically, HRM practices impact on individual performance by encouraging discretionary effort on the part of employees, developing the necessary skills, and providing people with the opportunity to perform (see Appelbaum et al., 2001; Boxall and Purcell, 2003; Lepak et al., 2006). In summary, through this process the system of HR practices transmits its impact on financial outcomes through improving the human capital and motivation of employees (Lepak et al., 2006; see also Boxall et al., 2016, p. 104).

The second part of the fourth phase highlighted the emergence of the 'new institutional' perspective. Overall, this theory shows that the behavior of organizations is a response not only to market pressures, but also to formal and informal institutional pressures from regulatory agencies - such as the state and the professions – as well to general social expectations and actions of leading organizations (Greenwood and Hinings, 1996; Paauwe and Boselie, 2003, p. 59).

### 3.5.1 The institutional perspective

Based on the institutional perspective, organizations are confronted with different environmental constraints, which may be the result of fundamental differences between countries. For instance, Anglo-Saxon countries such as the US are less institutionalized with respect to the employment relationships - including industrial relations and HR issues - than Rhineland countries such as Germany, France and the Netherlands (Paauwe and Boselie (2003, p. 59). What follows is that differences in the institutional mechanisms (e.g., legislation with respect to conditions of employment, collective bargaining agreements, employment security, and trade union influence) could possibly shape employment relationships, and HR decision-making in organizations (Paauwe and Boselie, 2005; see also Paauwe, 2004). Following this line of thinking, den Hartog and Verburg (2004) noted that the context in which organizations operate may limit or enhance the usefulness and success of a high performance work system. For instance, Dutch labor laws are strict and some high performing practices are required by law or are already regulated in Netherlands, whereas in other countries their implementation could vary. Similarly, Boxall and Macky (2009) argued that some practices implemented in the Anglo-American world might be understood quite differently and less positively in less individualist or more hierarchical cultures. As a general remark, Stavrou et al. (2010) argued that differences in HRM exist in between countries, mainly due to differences in the culture, the legislative frames, the patterns of ownership, and other cultural and institutional factors that are considered country contingent. Therefore, practices which seem to be appropriate in one culture may be less appropriate in another.

Overall, it can be concluded that these institutional mechanisms might decrease the effect of HR practices (or systems) on the performance of an organization. However, the correct handling of these institutional mechanisms – or at least the better handling than that of competitors – can be a source of organizational success (Paauwe and Boselie, 2003, p. 66).

## 3.6 The fifth phase – Bringing the worker center-stage

The fifth phase in the development of research emerged during the past decade. This new stream of research focused on the key role of workers and the importance of their perceptions and behavior in understanding the relationship between HRM and performance. Specifically, there was a frequent call to open the so-called ‘black box’ in exploring the process of linking HRM and performance. Next, we present the ‘black-box’ in depth.

### 3.6.1 The black-box

Until the early 2000s, most of the studies demonstrating a positive relationship between HRM and organizational performance included the HR practices and policies as the input variables, and some organizational performance indicators (both financial and HR indicators) as the dependent variables (Kinnie et al., 2005; see Armstrong, 2009, p. 140). However, this method of analysis tended to omit other significant variables (Paauwe, 2004). As a result, it soon became obvious that the specific examination of the proposed relationship would never be sufficient in understanding the linkage between HR practices and business performance (Purcell et al., 2003). Hence, although there seemed to be a direct relationship between HRM and firm performance, the mechanism driving this linkage remained unknown.

Taking the preceding discussion into consideration, the first calls for shifting the analysis towards a different path started to appear, highlighting the need to unlock the ‘black box’. For instance, Delery (1998) noted that HRM practices and systems do not lead directly to firm performance. Instead, they influence first firm resources (e.g., human capital of the firm, employee behaviors), which ultimately lead to performance. Thus, Delery (1998) highlighted the existence of mediating variables in the relationship between HRM practices and firm performance, although few researchers at the time had addressed their importance. Similarly, Wood (1999) stated that it is not enough simply to produce evidence that HR practices lead to

high performance. In contrast, it is necessary to understand how this effect is produced. Based on this argument, he highlighted the need to take into account the mechanisms linking HR practices and performance, as well as the the psychological processes that mediate or moderate the proposed relationship. In a similar line of thinking, Rogg et al. (2001) suggested that HRM practices first influence climate, which in turn determines performance. Next, Paauwe (2004) proposed the need to follow a ‘systems’ based approach that includes HRM practices and policies as input variables, HRM outcomes as intermediate variables and firm performance indicators as the dependent variables. Similarly, Boselie et al. (2005) referred to the causal distance between an HRM input and the financial performance output, suggesting that all other variables and events (internal or external) that might affect organizations should be taken into account. Last but not least, Sels et al. (2006a) suggested that qualitative research is more appropriate to grasp the reality of the black box since a discrepancy between intentions of HR managers and the actual practices as experienced by employees might exist. Indeed, as Boxall and Macky (2007) later noted, the process of HRM from management’s intentions to organizational performance is a chain of links connecting the intended HR practices by management, the actual HR practices as implemented by managers, the HR practices as perceived by employees, the employees’ reactions to these HR practices and finally the organizational performance.

To our knowledge, one of the most complete empirical works in examining the ‘black-box’ issue emerged by Messersmith et al. (2011, p. 1107). According to their research, organizational performance does not stem from the HR practices themselves but rather from the contribution that these practices make regarding employees' attitudes and behaviors. In turn, these attitudes and behaviors – such as job satisfaction, organizational commitment and empowerment - have altogether an effect on Organizational Citizenship Behavior (OCB). Organizational citizenship behavior (OCB) refers to the employee behavior that indirectly

contributes to the maintenance and enhancement of the social and psychological context that supports task performance and that, in aggregate, promotes the performance of the organization (Evans and Davis, 2005, p. 770). Finally, as a last step, these positive attitudes and behaviors affect departmental performance. In an effort to provide a clearer picture regarding the contribution of HR practices on employees' attitudes and behaviors, including OCB, Messersmith et al. (2011, p. 1114) provided an in – depth analysis. In more detail, as employees begin to sense greater commitment from departmental leaders expressed via systems of HR practices (such as HPWS), they are more likely to engage in the prosocial behaviors that help organizational units to meet goals and objectives. In combination, these helping behaviors allow organizational units to be more efficient and flexible, as employees are more likely to step beyond the bounds of their narrowly defined job descriptions to assist each other, and to help maximize their overall departmental functions. In addition, this reciprocity is likely to have continual positive effects in the department as OCBs become to emerge as a part of the established norms and values in the culture of the unit. However, it should be noted that relying on employees' discretion as a source of competitive advantage can have disadvantages, since it is not obvious whether these behaviors can be sustained over time or simply disappear over time.

In summary, by looking inside the 'black-box', the relationship between HRM and organizational performance can be enlightened. In a nutshell, HR systems affect employees to display positive attitudes and behaviors and as a result, discretionary behaviors. In turn, these positive employee attitudes and behaviors lead ultimately to organizational effectiveness.

### 3.7 The sixth phase – Growing sophistication

In summary, the sixth and final phase can be defined in terms of growing sophistication and complexity in the development of theory and research methods on the relationship between

HRM and performance, and provided a stepping point for considering further developments. For instance, this phase included calls for adopting a multi-level framework in examining the HRM – performance relationship, considering both the individual and organizational levels and the linkages between them (e.g., Ostroff and Bowen, 2000). A few years later, it was suggested that much of the emphasis needed to be placed on processes, underlining that it is not sufficient to have good practices if they are not properly implemented (e.g., Bowen and Ostroff, 2004). Hence, greater emphasis was placed on HRM effectiveness. Later on, other researchers integrated models from the organizational and social psychology field of study (e.g., Nishii et al., 2008) and argued that it is not just the presence of practices that is important but perceptions about the intentions behind the practices as well. These researchers underscored the communication of the purpose and the content of HR practices. Last but not least, and following the Guest (2011, p. 6) study, other additional developments in this phase included the recognition of a ‘strong’ HRM climate and HR system, the acknowledgement of the importance of the context within which HR practices are enacted, the development of complex research methodology and sophisticated statistical analysis, and the debate regarding the question of who should provide information about HRM (e.g., HR managers, workers or multiple informants).

During the last five years, however, researchers and academics emphasized the need for future research to take into account two specific issues. First, to focus on the processes that help to explain how HPWS influences health-related outcomes (van de Voorde and Beijer, 2015, p. 62), and secondly, to focus on the integration of both the light (positive) and the dark (negative) sides of HPWS (Boxall et al., 2016). As was presented in the introduction of the thesis, the latter issues lie at the core of our own research in the Greek healthcare, the banking and the manufacturing contexts. Therefore, both of these issues will be presented in more detail in chapters six and seven of the present work, respectively.

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## **PART IV**

### Implementing HPWS in the Manufacturing sector

## **4. HPWS in the Manufacturing sector**

### **4.1 Introduction**

The present chapter consists of two parts. In the first part, the main interest is focused specifically on the manufacturing sector. The goal is to review the literature by presenting some of the most important empirical studies of the sector that investigate the broader relationship between HPWS and organizational performance. Essentially, the review of empirical studies is separated in three parts. To begin with, the first part picks up where the second phase ‘Empiricism’ of the previous chapter left off. This part presents those empirical studies that examine the existence of systems of HRM practices (especially in the late 90s) and their effect on workers’ outcomes, as well as the direct relationship between systems of HRM practices, employees’ productivity and organizational performance. Next, the review continues by focusing on the fifth phase ‘Bringing the worker center-stage / the black-box’. This part presents those studies that focus on the relationship between HRM and employee outcomes, and specifically on the ‘black-box’. Finally, the last part presents the latest studies in the HPWS literature that fall into the last phase, titled ‘Growing sophistication’.

The second part of this chapter focuses on the HPWS implementation in the Small Medium Enterprises (SMEs). Taking into consideration that SMEs are recognized as critical to the economy of many countries, this second part begins with the definition of SMEs. Next, it continues by highlighting the main differences between large firms and SMEs, and concludes by presenting some of the most important elements characterizing SMEs. Finally, some of the most important empirical studies are presented, that focus specifically on the implementation of systems of HRM practices (including HPWS) in this sector.

## 4.2 Review: The HPWS implementation in the Manufacturing sector

### *4.2.1 HRM impact on workers' outcomes and performance*

To begin with, Delaney and Huselid (1996), based on data of US organizations obtained from the National Organizations Survey (NOS) in 1991 examined the relationship between HRM practices and firm performance. Their findings showed positive associations between HRM practices - such as staffing selectivity, training and incentive compensation - and perceptual firm performance measures. In contrast, no support was found for the 'internal fit' hypothesis, which suggests that complementarities or synergies among progressive HRM practices will be positively related to organizational performance.

Huselid and Becker (1997) estimated the impact of the presence of HPWS and its effectiveness and alignment with firm competitive strategy on shareholder wealth in 702 firms. The findings showed that the HR system had a strong independent effect on firm performance. However, no support was found for the presence of synergies between HR system and Effectiveness and Alignment, or between each of those dimensions and measures of corporate strategy. Overall, although the results of this study supported the positive relationship between HPWS and firm performance, the authors highlighted the importance of focusing on the importance of implementation effectiveness, top management support and consensus on the strategic role of HR, as well as on the acceptance of the HR function of such a role.

In turn, Wood and de Menezes (1998) used data from the 1990 UK Workplace Industrial Relations Survey and the Employers' Manpower and Skills Practices Survey and examined whether practices identified under the High Commitment Management (HCM) approach form a unity. In addition, they also examined whether such practices can be used as indicators for measuring high commitment orientation on the part of management. The analysis revealed an identifiable pattern to the use of high commitment practices, whereas four progressive styles of high commitment management (HCM) were discovered. Although the use of HCM in its

entirety was still relatively rare in the UK at the time, the proportion of organizations with medium levels of high commitment management was higher than what was assumed. Finally, the findings demonstrated that high users of HCM, in common with low users of HCM, did perform better than other organizations in terms of their profitability and ability to create jobs. Nonetheless, on other dimensions, the results of a HCM approach had little effect.

Guest (1999), based on an annual survey of employment relations in the UK, examined the impacts of HRM on workers. His research was based on the view that the impact of HRM should be related as much with outcomes to workers as to business. The findings of this study showed that a large proportion of the UK workforce at the time had been on the receiving end of the kind of practices commonly associated with HRM, and expressed positive reactions to them. Although there was no evidence in this study regarding the impact on performance, the data revealed that those reporting that they were affected by a greater number of HR practices were also likely to report greater levels of job satisfaction, job security and motivation, as well as lower levels of pressure at work. Overall, the evidence of this study suggested that a large number of workers evaluated their experience of HRM positively and associated it with higher levels of fairness of treatment and trust in management.

Ichniowski and Shaw (1999) collected data from 41 steel production lines to assess the effects of Japanese and US HRM practices on worker productivity. The Japanese production lines employed a full system of HRM practices, including problem-solving teams, extensive orientation, training throughout employees' careers, extensive information sharing, rotation across jobs, employment security, and profit sharing. The majority of U.S. plants had one or two features of this system of HRM practices, but only a minority had a comprehensive system of innovative work practices that paralleled the full system of practices found among the Japanese manufacturers. The findings suggested that the Japanese lines were significantly more productive than the US lines. However, US manufacturers that had adopted a full system of



innovative HRM practices patterned after the Japanese system achieved levels of productivity and quality equal to the performance of the Japanese manufacturers. Overall, this study's evidence helped reconciling conflicting views about the effectiveness of adopting Japanese-style worker involvement schemes in the United States. Indeed, US manufacturers that had adopted a definition of employee participation that extends only to problem-solving teams or information sharing did not see large improvements in productivity. In contrast, US manufacturers that adopted a broader definition of participation that mimicked the full Japanese HRM system experienced substantial performance gains.

Ramsay et al. (2000) utilized data from the 1998 Workplace Employee Relations Survey (WERS98) from both the management and employees across small and large organizations, and examined two models based on HPWS and Labor Process approaches respectively. In contrast to HPWS, the Labor Process theory suggests that even though HPWS practices provide enhancements in discretion, they can also raise some costs in the form of stress, work intensification, offloading of task controls, and increased job strain. Overall, the findings confirmed the relationship between HPWS-style practices and a number of measures of workplace performance. However, in line with the Labor Process approach, the widely held assumption that positive performance outcomes result from the positive employee outcomes was highly questionable.

Appelbaum et al., (2001) examined the effects of HPWS on workers' outcomes across 44 manufacturing facilities. Specifically, three industries were included, namely steel, apparel and medical imaging. Overall, the findings suggested that the introduction of HPWS could lead to some positive outcomes for plants and workers. Although HPWS had a positive impact on plant performance in all three industries, the most important finding was that HPWS had positive effects on worker outcomes such as trust, intrinsic rewards, organizational commitment, and satisfaction. In contrast, no support was found for the view that more

participatory workplace practices could increase workers' stress. In summary, the main conclusion of this research was that all firms should take seriously the potential worker and organizational benefits that may arise from these innovative human resource practices, although each industry and each firm should first examine their particular circumstances and choose the comprehensive high performance strategy that is most appropriate for them. To conclude, the analysis showed that under the right circumstances, and if employers are willing to make a sustained effort, HPWS can benefit both firms and workers.

Capelli and Neumark (2001) based on a unique longitudinal design incorporating data from a period prior to the advent of HPWS, examined the labor efficiency that HPWS transfer to the employees. Their analysis concluded that the HPWS raised labor costs per employee, suggesting a raise in employee compensation, which can be a significant cost to employers. On the other hand, it was indicated that these innovative HR practices also raised productivity (sales per worker) by roughly the same amounts, resulting in no effect on unit labor costs. Finally, there was some evidence of interactive effects of HPWS in the direction of raising productivity and lowering unit labor costs, consistent with synergies, but the estimates were generally small and statistically insignificant.

Guthrie (2001) examined the relationship between firms' use of high-involvement work practices and employee retention and productivity, based on a sample of business organizations located in New Zealand. Overall, this study supported the argument that greater use of such practices is associated with positive organizational outcomes. Indeed, the findings indicated a positive association between use of high-involvement work practices, employee retention and firm productivity. However, a disordinal interaction was also indicated. Specifically, employee turnover was associated with decreased productivity when use of high-involvement work practices was high and with increased productivity when use of these practices was low. As a result, Guthrie (2001) noted that the use of high-involvement work practices might increase the

value and importance of human capital, and as a result, the cost of employee departures. In other words, the use of these HR practices will likely increase employees' tacit or specialized knowledge, making them more distinctive and less easily replaceable. Thus, failure to retain the human capital might diminish the potential benefits arising from these HR practices.

Guest et al. (2004), based on the work of MacDuffie (1995) as a starting point, reviewed progress in the search for a 'bundle' of HR practices. Specifically, these authors reviewed the different methods by which bundles might be identified (factor analysis and regression) and Sequential Tree Analysis was presented as a possible alternative approach. Afterwards, the Sequential tree analysis approach was tested alongside factor analysis and regression on accounts of HR practices and aspects of performance provided by a sample of 1,308 managers. Overall, Sequential tree analysis appeared to aid in the identification of idiosyncratic and parsimonious bundles in relation to specific outcomes, and was also able to identify a small set of practices that mattered across several outcomes and which represented a core bundle. Finally, and of particular importance to the 'bundling' theory and the AMO framework (see Appelbaum et al., 2000), the authors noted that based on the evidence provided by this study, the building of a core bundle would need to incorporate practices designed to enhance competence, to encourage motivation and to promote opportunities to contribute.

den Hartog and Verburg (2004) based on a sample of 175 organizations from different sectors in the Netherlands, provided further evidence on the link between HPWS and firm performance and related these to organizational culture. Specifically, senior HR managers were questioned on HRM practices and chief executives on organizational culture. Moreover, three different groups of personnel were distinguished in the measures, namely core employees, managers and specialist professional staff. Finally, one high performance work system was distinguished, consisting of a combination of practices with an emphasis on employee development, strict selection and providing an overarching goal or direction. The findings

showed that HPWS was positively related to several performance outcomes (e.g., perceived economic performance, willingness to go beyond contract) and negatively to absenteeism. In addition, HPWS was positively related with three organizational culture orientations. Last but not least, practices that were not part of this combination also showed some positive (but limited) links with culture and outcomes.

Kinnie et al., (2005), based on research from two linked projects (from 2000 to 2003) covering 18 organizations, examined the links between employees' satisfaction with HR practices and their commitment to the organization. For the needs of this study they focused on three groups of employees, namely professionals, line managers, and workers. According the findings, satisfaction with some specific HR practices appeared to be linked to the commitment of all employees. However, when the analysis focused on each employee group separately, there were differences among groups with regard to the actual HR practices that would lead to their commitment. Overall, this study highlighted the necessity of tailoring HR policies to meet the needs of different employee groupings, while reflecting the business strategies of the firm which indicate what type of skill, knowledge and behavior is particularly important and distinctive. Finally, this study revealed that the design of the strategic HRM needs to take account of both business strategy and employee interests.

Stavrou and Brewster (2005) used the 'configurational' perspective to investigate the possible Strategic HRM Bundles of competitive advantage within the EU and the extent to which these bundles were linked to business performance. For the needs of their study they used data collected through the CRANET questionnaire, which is the product of an international team of academics conducting research on human resource management. Specifically, 14 out of 15 EU member states prior to May 2004 had been included in the analysis. Moreover, the final sample of organizations for the EU member states contained 3702 for-profit businesses, while all sectors of each country's economy were represented. The data

analysis provided support for the configuration approach with the emergence of fifteen strategic HR bundles indigenous to EU. Furthermore, six of the bundles were positively and one was negatively connected to performance. Overall, these results provided an initial step for management in the various EU businesses so as to see how human resources can be used strategically as a source of sustainable competitive advantage.

Sung and Ashton (2005), with the help and support of DTI (Department of Trade and Industry) and in association with CIPD (The Chartered Institute of Personnel and Development) examined the main aspects and provided the key point of HPWS. In addition, they presented ten case studies of organizations that successfully implemented these innovative practices. According to these authors, and taking into consideration that every firm / organization in the case studies used not only different sets of HR practices but also different synergies between them, they concluded that there is no 'one best way' or 'one best set or practices'. Instead, the crucial component should be the business strategy, as it underpins the choice of practices, the way that these practices are implemented, and their effectiveness in improving performance. Indeed, it is the business strategy that gives the high performance working practices their dynamism and provides the framework against which performance can be evaluated and improved.

Zacharatos et al. (2005) conducted two studies investigating the relationship between HPWS and occupational safety, measured by micro-accidents, near misses, and lost-time injuries. In Study 1, the purpose was to determine whether a relationship exists between HPWS and occupational safety at the organizational level. For the needs of this study, data were received from the human resource and safety directors across 138 organizations. In study 2, the purpose was to investigate the link between HPWS and occupational safety at the employee level, by examining the mediating role of trust in management and perceived safety climate.

For the needs of this study, data were received from 189 front-line employees in 2 organizations from the petroleum and telecommunications industries.

The findings of the first study showed that HPWS was not only associated with employee and firm performance, but was also positively related to occupational safety. The findings of the second study showed that trust in management and perceived safety climate mediated the relationship between HPWS and safety performance measured in terms of personal-safety orientation (i.e., safety knowledge, safety motivation, safety compliance, and safety initiative) and safety incidents (i.e., injuries requiring first aid and near misses). Overall, the two studies provided confirmation of the important role that organizational factors play in ensuring worker safety.

Purcell and Hutchinson (2007) used an employee survey in 12 ‘excellent’ companies and explored the extent to which employee commitment towards their employer and their job is influenced by the quality of the Front Line Managers’ (FLM) leadership behavior and by satisfaction with HR practices. In detail, two propositions were tested. The first stated that FLMs’ leadership behavior, independent of HR practices in use, influences organizational commitment and job experiences. The second stated that, independent of FLM leadership behavior, the HR practices as perceived by the employees will be related to organizational commitment and job experiences, and that the outcome effect on employee attitudes will be greater when both the organizational commitment and job experiences are positive. The results suggested that perceptions of leadership behavior enhanced employee outcomes, namely commitment and certain aspects of job experiences. Similarly, employee satisfaction with HR practices was associated with higher levels of commitment and aspects of job experience. The strong associations between leadership behavior and HR practices indicated the importance of FLMs in the enactment of HR practices and supported the combination of the two (FLMs and HR) in people management. In summary, the findings indicated a form of symbiotic

relationship between FLMS and HR practices, whereas HR practices required effective FLM activity to be recognized by employees in order to be successfully applied.

Dany et al. (2008), in contrast to studies attempting to identify the set of practices that is likely to improve organizational performance, focused on two key aspects of the organization of HRM. First, on the integration between HRM and business strategy, and secondly, on the distribution of roles and influences between line managers (LMs) and HRM specialists in their contribution to the HR implementation. Based on the resource-based view, it was suggested that HRM integration is a necessary but not sufficient condition for HRM to positively impact organizational performance. In addition, an equally necessary condition is to provide HRM specialists with a prominent role compared to LMs in order to ensure the required proper quality of implementation of decided HRM policies. Using data from the Cranet Survey, the authors employed a series of structural equation models to test the moderating effect of the HRM/LM relationship on the link between HRM strategic integration and organizational performance. Overall, the findings showed that too much or too little influence of HRM specialists in decisions regarding major HRM policies nullifies the HRM integration–organizational performance link. On the contrary, the results indicated that HRM organization (e.g., its level of integration and influence distribution between HRM specialists and LMs) had positive performance implications only in particular settings where HRM function was shared between HRM specialists and LMs. The best configuration corresponded however to the setting where, in addition to high level of HRM integration, HRM decision-making lied upon HRM specialists in consultation with LMs.

Guthrie et al. (2009), based on a sample of a multi-industry set of Irish-based operations, examined the extent to which the use of HPWS yields positive results. The findings suggested that greater use of HPWS enhanced both human resource and organizational outcomes. With respect to the HR outcomes, it was found that the use of HPWS impacted both employees’

attendance and retention. With respect to the organizational outcomes, and in line with previous work (e.g. Arthur 1992; Huselid 1995; Guthrie 2001; Datta et al. 2005), the findings suggested a generally positive association between greater use of HPWS and the labor productivity. Particularly noteworthy were the results regarding labor costs. Contrary to suggestions that HPWS may significantly increase compensation costs, the opposite result was obtained, suggesting that greater use of these systems is associated with reductions in labor expense as a percentage of operating costs.

Chi and Lin (2010) used data from Taiwanese manufacturing firms (including both high technology and traditional manufacturing firms), and explored the potential downside of the 'high performance' paradigm by examining the curvilinear relationship between HPWS and organizational performance, as well as the moderating effects of the industry type. The first issue that this study examined, the downsides of HPWS and the investigation of a possible curvilinear relationship between HPWS and organizational performance suggests that the higher costs of the implementation of such programs (e.g., sophisticated selection tools and continuous improvement) may outweigh the benefits. As a result, the linkage between HPWS and organizational performance can be less straight-forward. The second issue that this study examined, the moderating effects of industrial environment, suggests that the effects of HPWS on organizational performance may vary under different industrial environments. Overall, the authors noted that the high-technology firms often fail to balance the benefits and the costs of a HPWS investment with the potential danger that the costs offset the positive effects and thus make firms less profitable. Therefore, the expected relationship between HPWS and organizational performance can be curvilinear and reflect an inverted U-pattern. In contrast, these diminishing returns are less likely to occur within traditional manufacturing firms. Indeed, the relatively stable environment of traditional firms suggests that there is not required much innovation, flexibility or creativity as high technology firms. Therefore, the benefits



within the traditional firms are less likely to be offset by costs. In line with the authors' arguments, the findings suggested an inverted-U pattern between HPWS and organizational performance in high-technology firms, and a linear relationship in traditional manufacturing firms. Overall, the findings were consistent with the viewpoint of diminishing returns of HPWS and the contingency perspective.

Fabling and Grimes (2010), based on data of wide range of business practices and firm characteristics derived from the New Zealand's official statistical agency, examined the impact of high performance work practices (HPWPs) on firm performance. The survey included a wide range of business practices and firm characteristics, and covered a large sample across virtually all sectors of the economy. Overall, the findings showed that younger firms, larger firms, and high-tech services firms were most likely to adopt HPWPs. In addition, those firms that adopted a suite of HPWPs experienced enhanced performance (profitability, productivity and market share) in relation to their rivals. Finally, the study's findings provided significant help in understanding why not all firms adopt HPWSs. As the authors argued, HPWPs are likely to have an impact on firm performance only in some specific industries. For instance, in low-tech firms there is little advantage of implementing HPWS. In addition, the idiosyncratic ability of managers appears to be important. For example, old firms may be reliant on 'old school' managers who are not supportive of the new innovative HR practices. Moreover, small firms tend to avoid those HR practices that constitute a high performance work system. One possible explanation could be related to the lack of resources or to the lack of expertise in designing and implementing a HPWS. Last but not least, the benefits of adopting such systems may not be as large for small firms as for larger ones. Overall, the finding that firms adopting a HPWS experienced enhanced performance, combined with the fact that the analysis was based on a large sample that is representative of an entire economy, provided evidence that human resource practices really do matter.

Messersmith and Guthrie (2010), using a sample derived from the National Establishment Time-Series (NETS) database explored the role that HPWS plays in the performance of high-tech new ventures, and specifically investigated the links between HPWS and firm performance. The findings indicated that HPWS was associated with higher levels of sales growth, product innovation, and organizational innovation. However, the results of this analysis failed to support a mediating role for voluntary turnover among the sample of firms. Specifically, although the correlation between HPWS and turnover was negative, this relationship was not statistically significant. Similar to this finding, the relationship between voluntary turnover and firm performance was not statistically significant either. This finding diverged from the strategic HRM literature, which shows a negative relationship between HPWS and turnover (e.g., Arthur, 1992; Huselid, 1995; Guthrie, 2001; Way, 2002). Overall, the results of this study demonstrated that the effects of HPWS holds in small, private, and relatively young firms operating in the human capital-intensive high-tech sector. In addition, although many traditional strategic HRM studies examined manufacturing-based businesses, the sample for this study consisted mainly of computer service and software suppliers. As such, the results of this study further built on the logic of the resource-based view of the firm by showing a connection between people management practices and firm performance.

Stavrou et al. (2010), based on 'HRM bundles of competitive advantage', and drawing evidence from a large-scale survey of European private sector businesses explored the importance of geographic context on the link between human resource management and organizational performance. Moreover, these researchers examined how geography moderates the relationship between business performance and a large array of HRM practices grouped into bundles in the European Union (EU). Overall, the analysis revealed three distinct geographic regions and 21 'HRM bundles of competitive advantage'. In addition, the findings suggested that the relationship between the 'HRM bundles of Competitive Advantage' and

performance was contingent on the geographic context, and thus it was similar across some, while different among other regions. In summary, the study showed that no perfect universal set of best practices exists, but rather a combination of ‘best practice’ and ‘best fit’ depending on bundle and region. Nonetheless, the two approaches are not necessarily mutually exclusive but on the contrary, they can be combined as a competitive tool in the HRM – Performance relationship.

Martinez-Del-Rio et al. (2012) based on a population of agri-food firms in three geographical clusters in Spain investigated the role that High-Involvement Work Practices (HIWPs) might play on enhancing a firm’s economic performance through the development of environmentally sustainable strategies, such as a Proactive Environmental Strategy (PES). Proactive strategies involve continuous improvement and the implementation of environmental practices that extend beyond competition and industry standards; anticipating and preparing for future changes in regulations and social trends; and designing or altering operations, processes, and products to prevent negative environmental impacts. In summary, the study’s findings showed a positive relationship between HIWPs and PESs, as well as a positive relationship between PESs and performance. Finally, although the direct effect of HIWPs on performance was not significant, HIWPs did have a significant indirect effect through a PES as a mediator.

#### *4.2.2 The ‘black-box’: Mechanism of the HRM – Performance relationship*

Wright et al. (2003) examined the impact of HR practices on organizational commitment, as well as on the operating performance and profitability of 50 autonomous business units within the same corporation. Overall, the findings showed that when employees are managed with progressive HR practices, they become more committed to their organization. In turn, at least in part, this commitment leads employees to exhibit proper role behavior (and thus lower

workers' compensation costs, higher quality and higher productivity) and to not engage in any dysfunctional behavior. In part, these operational performance outcomes result in lower overall operating expenses and higher profitability.

Kalleberg et al. (2004), following the study of Appelbaum et al. (2001), used data on plants and workers in the steel industry and examined the role in of trust in mediating the effects of high performance work practices on workers' and organizational' outcomes. According to the findings, workers who had opportunities to participate in decisions were more likely to trust their managers. In turn, workers reporting greater trust in their managers were generally more committed to their organizations and more satisfied with their jobs. Finally, although the findings showed that high levels of trust could lead to greater organizational commitment and job satisfaction among workers, it was indicated that trust was not sufficient in enhancing organizational performance. In contrast, organizational performance was affected by work organization practices that provide workers with the adequate training, incentives and autonomy to participate, and as a result, improve the overall production processes.

Macky and Boxall (2007), based on a sample comprised by all registered urban electors of working age in New Zealand, focused on the mediating variables inside the 'black box' of the firm's labor management. Specifically, they examined the relationship between HPWS and employee attitudes, namely job satisfaction, trust in management, and organizational commitment. Moreover, an additional goal was the investigation of possible interactions between the practices, examining the 'complementarities' thesis from an employee rather than organization level perspective. The findings supported the initial hypotheses suggesting that the more HPWS practices employees experience, the more positive the employee outcomes will be in terms of improved levels of job satisfaction, organizational commitment (affective and behavioral), and trust in management. Moreover, it was demonstrated that trust in management mediated the relationship HPWS and affective commitment, while the

relationship between HPWS and behavioral commitment was partially mediated by the other three variables of job satisfaction, trust in management and affective commitment. Finally, the last hypothesis regarding the existence of ‘complementarities’ between HPWS and employees’ attitudes was only partially supported. Thus, it was assumed that there might be limits to the positive effects of HPWS for employees. In summary, although this study did not include any labor productivity or financial variables, it did reveal that adding more HPWS practices should lead via job satisfaction – which appeared to be the key linking variable - and through increased trust in management and affective commitment, to stronger intentions for employees to remain with their employer. Hence, as the authors suggested, HPWS can provide win - win outcomes for employees and employers.

Takeuchi et al. (2007) in an effort to open up the ‘black box’ in strategic HRM research examined the underlying mechanisms through which HPWS affect overall establishment performance. Specifically, they investigated the argument that HPWS will generate a high level of collective human capital and encourage a high degree of social exchange within an organization, and that in turn these will be positively related to the organization’s overall performance. In other words, they included establishment-level human capital and social exchange as mediators. Based on a sample of Japanese establishments from different sectors, the findings showed that HPWS was positively associated with the level of collective human capital in an organization, as well as with the degree of social exchange employees collectively perceive. These, in turn, were related to relative establishment performance. Overall, the findings provided support for the existence of possible mediating mechanisms through which high-performance work system affects overall establishment performance.

Takeuchi et al. (2009), based on data obtained from 324 managers and 522 employees in 76 Japanese establishments from different sectors, examined the underlying mechanisms through which HPWS relate to employees’ job attitudes. By drawing on theory and research from the

strategic HRM and organizational climate literatures, results from cross-level analyses indicated that the relationships between establishment-level HPWS and employee job satisfaction and affective commitment were fully mediated by establishment-level concern for employees' climate. These results shed new light on the mechanisms through which HPWS impacts employee outcomes and served to bridge between macro and micro perspectives of human resource management.

Wei et al. (2010) noted that in the majority of high-performance HR practices literature, researchers have focused on the effect of HR practices on organizational effectiveness, and have paid less attention to outcomes at the individual level. Hence, and drawing on a sample of 576 employees from 11 manufacturing plants in Taiwan, they investigated the relationships between high-performance human resource (HR) practices and individual outcome variables, including psychological climate perceptions and job satisfaction. In addition, they investigated the mediating role of job satisfaction in the relationship between psychological climate and organizational citizenship behavior (OCB). The findings showed that psychological climate perceptions were positively and significantly associated with job satisfaction and OCB, while job satisfaction mediated the relationship between psychological climate perceptions and OCB at the individual level. At the plant level, high-performance HR practices had a positive and significant relationship only with job satisfaction.

Messersmith et al. (2011) explored the underlying mechanisms that enable the connection between HPWS and organizational performance outcomes. In detail, and based on a large sample of Welsh public-sector employees, they explored the role of several individual-level attitudinal factors - namely job satisfaction, organizational commitment, and psychological empowerment - as well as the role of organizational citizenship behaviors that have the potential to provide insights into how HR systems influence the performance of organizational units. At this point, the basic terms of these attitudinal factors should be provided. To begin

with, job satisfaction suggests that employees who perceive that departments implement HPWS for improvement of their well-being will have higher levels of job satisfaction. Organizational commitment is a reflection of an employee's identification with and loyalty to the employing organization and it has been shown to be a predictor of a variety of employee behaviors such as employee absenteeism and turnover. Psychological empowerment has been assessed as a function of four related cognitions, namely meaning, competence, self-determination and impact. Finally, and as was already mentioned in the previous chapter of the present work (p. 63), Organizational Citizenship Behavior (OCB) represents the 'activities of employees that support the organizational, social, and psychological environment in which the technical core must function. OCBs are extra-role behaviors that support the more defined and codified work roles within the organization'. Overall, the findings supported the proposition that the utilization of a HPWS at the department level is associated with enhanced levels of job satisfaction, organizational commitment, and psychological empowerment. In turn, these attitudinal variables were found to be positively linked to enhanced organizational citizenship behaviors, which were further related to a second-order construct measuring departmental performance.

Wood and de Menezes (2011), based on data from Britain's Workplace Employment Relations Survey of 2004 (WERS2004), attempted to develop theory of the effects on well-being of four dimensions of HPWS, namely enriched jobs, high involvement management, employee voice, and motivational supports. According to the findings, enriched jobs were positively associated with both measures of well-being, namely job satisfaction and anxiety – contentment. However, employee voice was associated only with job satisfaction, while motivational supports with neither measure. Finally, high involvement management was positively associated with anxiety–contentment, and was also unrelated to job satisfaction. In summary, the authors concluded that priority should be given to initiatives that enrich jobs,

enhance consultation and improve information sharing and consultation. The precise form of motivational supports may not be significant for well-being, although individual performance-related pay may support enriched jobs. Last but not least, although various studies have shown that high involvement management may have positive effects on performance, the present results suggested that there is the downside of increasing anxiety.

Giannikis and Nikandrou (2013) investigated the effects of Corporate Entrepreneurship (CE) and HPWS on employees' attitudes. Corporate Entrepreneurship (CE) is defined as a firm's tendency towards innovation, risk taking and proactiveness. Specifically, and based on empirical evidence obtained from 424 employees in the Greek manufacturing industry, they investigated the effects of corporate entrepreneurship (CE) and HPWS on facets of job satisfaction and the three components of organizational commitment, namely affective, normative, and continuance. Moreover, and consistent with the social exchange theory, they examined whether psychological contract could act as an important mediator for the CE, HPWS and employees' job attitudes relationships. The findings showed that both CE and HPWS had a positive impact on employees' level of job satisfaction and organizational commitment. In addition, the evidence provided support for the significance of the psychological contract theory as a coherent theoretical framework for understanding these aforementioned relationships. Indeed, and consistent with the social exchange theory, the findings demonstrated that within dynamic work environments where comprehensive HRM practices are implemented, perceptions of psychological contract breach are less likely to occur, and therefore employees reciprocate with increased job satisfaction and organizational commitment. Overall, these findings underscored the significance of the psychological contract as an important mediator between the relationships of CE, HPWS and employees' attitudes.

Garcia-Chas et al. (2014) based on a sample of 155 engineers from 19 different companies and industries examined the relationship between employees' perceptions of HPWS and



intention to leave, as well as the possible mediating role of job satisfaction, procedural justice and intrinsic motivation in this relationship. The findings indicated that HPWS was positively associated with job satisfaction, procedural justice and intrinsic motivation. However, only job satisfaction mediated the relationship between HPWS and engineers' intention to leave, whereas procedural justice and intrinsic motivation mediated the relationship between HPWS and job satisfaction.

Zhang and Morris (2014) based on a sample of 168 firms of six ownership types and in various business sectors operating in China, investigated the relationship between HPWS and organizational performance, and the mediating effect of employee outcomes. Employee outcomes included 'staff turnover rate', 'absenteeism', 'staff morale', 'employee commitment', 'job satisfaction' and 'the ability of staff to move between jobs as the work demands'. According to the findings, organizational performance was positively predicted by HPWS and employee outcomes, while the latter positively mediated the relationship between HPWS and organizational performance. Overall, this study supported the theory that HPWS has the ability to impact positively organizational performance, and explained the mechanisms through which the aforementioned relationship takes place. In addition, and more importantly, the study's findings underlined the importance of employee-related factors in the HRM-performance linkage. Indeed, this research proved that HRM is able to enhance rather than merely sacrifice employee outcomes / well-being, when pursuing organizational performance.

#### *4.2.3 Growing sophistication*

Chowhan (2016) investigated the relationships between skill-enhancing, motivation-enhancing and opportunity-enhancing bundles of practices, and organizational performance. In addition, he examined the effect of innovation over time at the workplace level as a potential mediator in the proposed relationship between HPWS and organizational performance. The

analysis relied on the Workplace and Employee Survey (WES) which is a longitudinal data set that is nationally representative of workplaces in Canada and it includes non-government business sector employers stratified by industry, region and workplace employment size. The findings showed that investments in skill-enhancing practices lead to higher levels of innovation, and subsequently higher organizational performance. Further, the study highlighted the importance of aligning strategy with HRM practices to achieve higher levels of organizational performance, as strategic activity was found to be a significant moderator. Overall, as it was concluded, it is the selective implementation and tailoring of HRM practices in alignment with strategic activities that creates differentiation in terms of human resources as an asset that drives sustainable competitive advantage.

Heffernan et al. (2016) based on a People Management Survey of 169 HR managers from top performing firms in the Republic of Ireland, explored the mediating role of creativity climate in the relationship between high-performance human resource practices and a broad range of organizational performance measures, including employee performance and HR performance. In addition, they examined the moderating role of strategy (differentiation strategy and low cost strategy) in the aforementioned relationship. Overall, the findings indicated that HPWS had a positive impact in enhancing a number of performance variables across a diverse range of high performing firms from the Republic of Ireland. In addition, the findings emphasized the role of HRM in fostering and sustaining a creativity climate as one of the key means by which this performance benefit was realized. Finally, strategy was not found to be a significant influence on the HRM-performance relationship. The only hypothesized relationship that proved significant was that of differentiation strategy, which was found to moderate the relationship between HPWS and employee performance such that for those organisations pursuing a more extensive differentiation strategy higher levels of HPWS were associated with more positive employee outcomes. This suggested that organisations pursuing

a differentiation strategy needed depth and breadth of employee skills, as well as a higher level of commitment and involvement.

Latorre et al. (2016) tested a high commitment model of human resource (HR) practices and its association with employee outcomes (sickness absence and employee performance) through a path including employee perceptions and attitudes, thereby seeking a new way of opening the so-called 'black box' between HRM and performance. For this study, the authors relied on data collected through a questionnaire survey with responses from 835 Spanish workers from three sectors (services, education and food manufacture). According to the findings, High commitment HR practices were related to employee performance through the mediating effect of perceived organizational support, a fulfilled psychological contract and job security, and job satisfaction. In summary, this study highlighted the roles of high commitment HR and of a social exchange model that places a positive employment relationship at the center of the link between HRM and performance. Overall, this study supported a causal chain from input (HR practices) to perceptions (the employment relationship), attitudes (job satisfaction) and performance (employee behavior).

Obeibat et al. (2016) focused on providing a better understanding in the relationship between high-performance work practices (HPWPs) and organizational performance by using a multi-dimensional model that conceptualized HPWP according to the ability, motivation and opportunity (AMO) framework. For the needs of their study, they relied on data collected from 118 Jordanian firms operating in the financial and manufacturing sectors. The findings generated support for the link between HPWP and organizational performance and confirmed the utility of the AMO model for conceptualizing HPWP and their impact on organizational performance. Overall, this verification lent support to the AMO framework as an appropriate model for examining the 'black box' in the link between HPWP and performance.

Raineri (2016) tested the employee perceptions of subsets of HPWS practices, based on the Abilities - Motivation – Opportunities (AMO) framework, as predictors of business units' performance. For this analysis, he used the motivational (collective affective commitment) and the human capital paths as mediating variables. Based on a sample of 216 business units at 134 firms operating in Chile, the findings indicated that personnel selection, performance evaluation and training, job descriptions, and empowerment practices made simultaneous contributions to the human capital and motivational (affective commitment paths). However, the partial mediation effects observed suggested that additional mechanisms might contribute to the HPWS–performance relationship, which should be explored. Moreover, compensation and incentives practices only contributed to the motivational path (collective affective commitment), while the human capital path and direct effects were non-significant.

Shin et al. (2016) drawing on the ability–motivation–opportunity (AMO) framework, investigated how and when high-involvement human resource management practices (HI HRM practices) influence worker creativity. The sample of this study included 3316 production-line workers from 240 manufacturing companies in South Korea. The findings showed that HI HRM practices were positively associated with intrinsic job motivation and worker creativity. In addition, learning orientation of employees moderated the relationships in such a way that the positive relationships between HI HRM practices and intrinsic job motivation or worker creativity existed only when employees had high levels of learning orientation. Finally, intrinsic job motivation mediated the relationship between the HI HRM practices and worker creativity, and the moderation. Overall, these findings suggested that the HI HRM practices have significant cross-level impact on individual intrinsic job motivation and creativity at work.

## 4.3 Implementation of the HPWS in the Small Medium Enterprises (SMEs)

The specific section of the present chapter moves away from the HRM research on large firms, and turns its focus on the HRM effects on the Small Medium Enterprises (SMEs). Overall, SMEs are recognized as critical to the economy of many countries, and have been characterized as important in terms of the engines of growth, international trade and numbers employed (Dundon and Wilkinson, 2009). According to Boxall and Purcell (2003), two main reasons highlight the importance of SMEs. First, the way people are managed in SMEs which is regarded as central to the competitive standing of firms and industries, and second, the significantly high number of smaller firms that make up a large proportion of employment. Indeed, in most economies smaller firms account for a significant proportion of economic activity. For instance, in Europe, SMEs represent around 99% of all enterprises, and are important in terms of employment and gross value added (GVA), especially in smaller countries such as Denmark, Norway and Finland (Eurostat, 2015). In Greece, specifically, SMEs are mostly family-owned and perform the 99.9% of industrial business activities. Although they demonstrate low productivity, they tend to maintain an increased employment rate (Psychogios and Wood, 2010, p. 2626). Based on the preceding information, it goes without saying that the role of SMEs in the context of an economy is extremely important. However, and before theorizing HRM in SMEs, one significant question should be answered. How can SMEs be defined?

### *4.3.1 Definition of SMEs and related issues*

Overall, there is no single or acceptable definition of a small firm (Storey, 1994, p. 8). For instance, the American Small Business Administration suggested that a small to medium-sized

firm should employ fewer than 1,500 people, while earlier definitions in Britain defined a small manufacturing firm as one that employed fewer than 200 workers. Instead, the European Commission (DTI, 2001) distinguished SMEs into ‘micro’ firms (less than 10 employees), ‘small’ businesses (10–49 employees) and ‘medium-sized’ enterprises (50–249 employees). However, and following Dundon and Wilkinson (2009), it should be noted that such conceptual distinctions regarding the SMEs’ definition can be problematic for three main reasons. First, small firms differ in terms of what they do and who they employ. Second, the nature of each firm differs with a vast array of market conditions. For instance, some firms are dependent on larger organizations for their survival through outsourcing and contract services, while others operate in discrete and niche markets, such as hi-tech or business consultancy. Third, the use of alternative (and mostly normative) models of HRM tend to be applied to smaller firms as though they are the same as larger organizations. Indeed, the majority of the HRM studies that focus on SMEs do not distinguish between smaller and larger firms, but combine small and medium-sized firms into a single category ranging from 1 to 250 employees. This may cause a significant problem since the different numbers of employees require different management practices (see Tsai, 2010; Torre and Solari, 2012). In line with this third limitation, previous studies on SMEs focused on the investigation of only a few dimensions of HRM practices in depth (e.g., selection, recruitment, training, and compensation). This approach, however, examined parts of management practices as opposed to the whole and did not illustrate the full dynamics of management practices in SMEs (Tsai, 2010, p.1690).

In summary, SMEs are not homogenous but differ in terms of context, family and kinship along with variable labor and product markets (Edwards and Ram, 2009). As a result, these conditions need to be recognized in depth in an effort to extend the mainstream literature surrounding HRM and SMEs.

#### *4.3.2 Theorizing HRM in SMEs: Differences between large firms and SMEs*

Overall, the recognition of the SMEs as central to a country's economy has provoked debate about the role of HRM as a means of enhancing organizational effectiveness (see den Hartog and Verburg, 2004). On other hand, what is problematic, is the fact that much of the literature that espouses the virtues of HRM is almost exclusively derived from larger firms (Dundon and Wilkinson, 2004; see also Cardon and Stevens, 2004). As a result, it is generally believed that the lessons learned from the HRM effects on larger organizations will be applied almost automatically to HRM focused on SMEs. However, large firms are very much different from SMEs. For instance, large firms are generally shaped by their national environments (Edwards and Ram, 2009). In addition, consultation arrangements may be regulated by law, whereas in small firms, such formal institutional effects are weaker, and 'informality' is much more common (Dundon and Wilkinson, 2009, pp. 130-131). Indeed, the adoption of more formalized procedures and practices may be seen as nonsensical, since they would lose the small size advantages (Torre and Solari, 2012, p. 4). Moreover, many SMEs tend to have a very particularistic approach to HRM, with authoritarian management styles instilled by founding-owners with a tendency to avoid commercial alliances in favor of their own in-house strengths and expertise (Briscoe and Schuler, 2005). Moving a step further, HR practices may not have the same meanings between small and larger firms. For instance, it would be typical for an employee in a small firm to complete multiple work tasks as a part of his everyday work. Similarly, reporting the existence of team-working in a smaller firm is not the same as a team-based structure in a large organization. Last but not least, in SMEs employees tend to work together by definition of the smaller work environment. Thus, this is not a team as conventionally understood in much of the mainstream literature on HRM based on larger firms (Dundon and Wilkinson, 2009, p. 139). Finally, a significant issue emerges when examining the potential effects of a system of HRM practices (such as HPWS) on SMEs as opposed to

large firms, which relates to the implementation costs. Indeed, such systems may create higher labor costs that cannot be outweighed by the superior employee output / benefits. This drawback may be even more serious for smaller firms, since they cannot enjoy greater economies of scale (lower HRM costs per employee) from the HPWS implementation as is the case with their larger counterparts (Way, 2002).

#### *4.3.3 Theorizing HRM in SMEs: from 'bleak-house' to 'small is beautiful'*

The previous sub-sections presented the significance of SMEs as part of the economic activity of a given context, demonstrated the various issues emerging from the definition of SMEs, and finally presented some of the most important implications that might arise should the 'lessons learned' from the HRM effects on larger organizations be applied automatically on the context of SMEs. To continue with, and by following Torre and Solari (2012), there are some basic elements with respect to HRM and employee relations that characterize SMEs, which should be analyzed in depth.

To begin with, one significant distinction is the opposition between the 'homogeneity' versus the 'heterogeneity' views on SMEs behaviors in relation to HRM systems. The first view suggests that there can be some sort of homogeneity in the adoption of HR practices among firms. In contrast, the heterogeneity view suggests that firms adopt quite different behaviors regarding the HR practices, which are based on the different beliefs and intentions of the founders and the CEOs (Torre and Solari, 2012, p. 4). The opposition of 'homogeneity' vs 'heterogeneity' is particularly important, taking into consideration that previous research showed a tendency to examine SMEs based on a range of industry sectors. However, and given that significant differences exist between different sectors (e.g., level of employee skills, product markets), this approach is unlikely to contribute to the SMEs research (Tsai, 2010).



In addition, some of the earlier studies about employment and HRM among SMEs tended to conflate the characteristics of smaller firms along opposite ends of a continuum (Wilkinson, 1999; see also Dundon and Wilkinson, 2009; Torre and Solari, 2012). At one end there is the ‘small is beautiful’ perspective, which argues that smaller enterprises facilitate close and harmonious working relationships with better communication, greater flexibility and low levels of conflict. In these firms, HRM is characterized by a non bureaucratic style of management where there is a flow of information between the employer and the employees, and where there is commitment and loyalty in the workforce. The opposite end of the continuum, ‘the bleak house’ perspective suggests that employees in SMEs suffer from poor working conditions, inadequate health and safety and have less access to union representation than employees in larger establishments. According to this perspective, conflict is not so much lacking but is rather expressed through higher levels of absenteeism and labor turnover. In summary, the first perspective argues that employment relations in smaller firms are better than in large firms, whereas the second perspective conceals a reality where smaller firms show lack of trust compared to larger firms, wages are below the minimum levels and flexibility largely means instability (Torre and Solari, 2012, p. 3).

With respect to the latter two theories, both have raised much debate and criticism. To begin with, it has been suggested that theorizing about HRM in SMEs based on the latter two perspectives can simplify practices that are much more complicated in reality. For instance, although some studies show that employees working in smaller firms display a high degree of satisfaction in relation to their counterparts in larger establishments, it is difficult to explain whether such satisfaction is attributable to the size of the firm or to other contributory factors such as the role of management, leadership style, or familial culture (see Tsai et al., 2007). Moreover, other researchers addressed the issue of variability among different types of SMEs, and distinguished between ‘dependent and dominated’ and ‘isolated and innovative’ small

firms (see Rainnie, 1989; Goss, 1991). ‘Dependent and dominated’ small firms refer to those that rely on large firms for their main customer base, and usually follow a low cost-differentiation strategy. Hence, employees tend to experience low wages and generally poor conditions. In contrast, ‘isolated and innovative’ small firms tend to operate in markets that large firms avoid due to limited or minimal financial returns. ‘Isolated’ SMEs often adopt a low cost strategy, whereas ‘innovative’ SMEs may be competing in high risk markets that require specialist expertise or high employee skills.

Finally, it should be mentioned that the preceding typologies have been criticized for being too deterministic by reducing factors to external market influences and neglecting internal social relations at enterprise level (Dundon and Wilkinson. 2009, pp. 133-134). Based on these discussions, various suggestions have been proposed. For instance, some researchers suggested that it is not size per se that best explains HRM in SMEs but rather the type of sector and market economy in which smaller firms have to operate (e.g., Curran and Stanworth, 1981). In contrast, others suggested that it is the type of management style and the associated informal and family cultures that shape the employees’ experience of work in many SMEs (e.g., Ram, 1991, 1994).

Overall, as Dundon and Wilkinson (2009, p. 134) suggested, both the ‘small is beautiful’ and the ‘bleak-house’ perspectives are likely to be too polarized to reveal the complexity and unevenness of people management practices among the diverse range of SMEs. Taking the preceding discussion into consideration and the need to gain a clearer picture on the HRM in SMEs, the following section reviews some of the most important empirical studies to our knowledge, that examine the effects of systems of Human Resource Management (such as HPWS) on SMEs. As a result, a timeline of empirical studies will be created showing the developments, limitations, and perhaps complexities in the HPWS research focusing on SMEs.

#### *4.3.4 Empirical studies*

Way (2002) based on a sample of 446 US firms with fewer than 100 employees examined the association between HPWS, workforce turnover and labor productivity. Overall, the findings suggested that HPWS was associated with lower workforce and voluntary turnover, and higher productivity. As a result, it was concluded that HPWS enhanced the ability of small US firms to select, develop, retain, and motivate a workforce that produced superior employee output, which could be key to the success of small US firms and a source of sustainable competitive advantage within the US small business sector. However, results also indicated that among small US firms, HPWS did not necessarily produce outcomes that exceed the labor costs associated with the use of these systems.

Cardon and Stevens (2004) reviewed 37 articles of the HRM literature within small and emerging ventures and highlighted additional questions that had not been addressed. Overall, the review suggested that the understanding of the HR issues important to small and emerging firms was limited at the time. Although there was a general understanding in how these firms should hire, reward, and perhaps even motivate their employees, there was still a lack of the theory and data necessary to understand how small and emerging firms train their employees, manage their performance, promote or handle organizational change, or respond to potential labor relations and union organization issues. Indeed, the existing studies presented an often-confounded relationship between size and age, between the issues important to small firms and the issues important to young ones. Overall, and taking into consideration the potential that the HR decisions might have on the organization's downstream success, this study highlighted the importance of understanding how these functional areas of HR (as well as their integration and evolution) would affect small and emerging firms, and how the HR decisions made during the formative stages of firm development would impact the firm's long-term goals.

Carlson et al. (2006) based on a sample of 168 family-owned fast growth small and medium enterprises (SMEs) examined the consequences of five human resource practices on sales growth performance. The results suggested that training and development, recruitment package, maintaining morale, use of performance appraisals, and competitive compensation were more important for high sales-growth performing firms than for low sales-growth performing firms. Hence, it was concluded that high performing family firms were significantly more likely to recognize and prioritize these areas. This finding was consistent with research of large organizations, which was consistently showing that these high performing HR practices are critical to organizational success. Last but not least, the authors examined the use of incentive compensation in the form of cash, noncash, and benefits and perks for four different levels of employees in family-owned SMEs. Overall, the findings suggested that in family-owned SMEs, cash incentives in compensation across all levels of employees would lead to higher performance.

Drummond and Stone (2007) explored aspects of employee relations in firms included within The Sunday Times list of the UK's 'Best Small Companies to Work For', focusing in particular on the use of HPWS, and the way HPWS affected performance in these businesses. In summary, the SMEs studied were found to be highly successful in terms of sales and employment growth. Moreover, the analysis suggested that the common explanation for enhanced business performance in terms of HPWS was valid but partial. Specifically, the systems of HR practices in use in these businesses were not simply sets of particular HRM practices. In contrast, they were comprised by other less obvious but nevertheless crucial components. Overall, it was suggested that the cultures, values and norms established within the businesses are necessarily part of the system, and as a result, they play a fundamental role in shaping, empowering and reproducing the practices used.

Harney and Dundon (2006) presented a framework to evaluate HRM in SMEs, using an open systems theoretical perspective. In presenting an open systems perspective the objective was to overcome the limitations of existing theorizing in HRM, in particular to facilitate a move away from the 'small is beautiful' versus 'bleak house' stereotypes evident in much of the literature concerned with HRM in SMEs. For the needs of this study, they relied on evidence drawn from six SMEs operating in the Republic of Ireland, using a case study method. The findings showed that a complex interplay of external structural factors and internal dynamics shaped HRM in each of the companies. Moreover, HRM was not the coherent set of practices typically identified in the literature but rather was often informal and emergent. Overall, this study concluded that HRM in SMEs was not a seamless garment but rather a quilt composed of a distinct mix of policies and practices, in some cases uneven and contradictory, imbued with varying levels of formality and informality, each reflecting the unique context from which they emerged. Hence, it was acknowledged that 'the homogeneity' among SMEs, whether it be in terms of systems of control, numbers employed, and turnover, or in terms of relationships with major companies, did not exist.

Sels et al. (2006a) developed and tested a conceptual framework linking HRM to financial performance to small businesses. For the development and optimization of the conceptual framework, the authors relied on human capital theory and bankruptcy prediction models. Specifically, they studied the mediating effect of voluntary turnover and productivity on the relationship between HRM intensity and one year lagged financial performance. For the needs of their study, they relied on data coming from a sample of 416 Belgian small businesses with 10 to 100 employees. Overall, the results showed that HRM intensity had a strong positive effect on productivity and, through this productivity, a squeezing effect on personnel costs / value added. However, this effect was not strong enough to compensate for the cost increases which HRM intensity involves. On the other hand, the total effect of HRM intensity on

profitability was positive and very strong. This effect can be explained by the positive impact of HRM intensity on some non-measured operational performance outcomes, such as a lower level of disputes, better quality and/or more innovation. A last important observation was that the positive impact of HRM intensity on profitability was not at the expense of a deteriorated solvency and liquidity score. In summary, the analysis demonstrated that intensive HRM could offer surplus value for small businesses, a conclusion which was in line with prior empirical work on this topic in larger companies.

Sels et al. (2006b) developed a conceptual framework that mapped both the value-enhancing and cost-raising impact of high performance work practices (HPWPs). Moreover, an additional goal was the examination of the HPWPs' overall effect on financial performance. Indeed, understanding both performance and cost-related effects of the implementation of HPWP is particularly valuable for small businesses since they often lack financial resources to implement HPWP and benefit less from economies of scale compared to their larger counterparts. For the purposes of this study, the authors relied on data coming from a sample of 416 Belgian small businesses with 10 to 100 employees. The analysis showed that an intensive HRM could influence the financial health of small firms both positively and negatively. To begin with, the cost-increasing impact canceled out the productivity gains. However, and despite the lack of effect on the share of personnel costs in value added, there was indeed found a positive total effect on profitability. Moreover, this positive impact of HRM intensity on profitability was not at the expense of a deteriorated solvency and liquidity score. Overall, the authors concluded that HPWPs did offer surplus value for smaller organizations, while this positive relationship was in line with prior empirical work on this topic in larger companies.

Kotey and Folker (2007) examined the main and interaction effects of size and firm type on a variety of informal and formal training programs in small and medium-sized enterprises

(SMEs). For the needs of this study, samples of 448 family and 470 nonfamily SMEs were separated into four size groups. The results suggested a prevalence of informal training for all sizes and an increase in adoption of formal, structured, and development-oriented training with increasing firm size (especially for firms with 20–99 employees). This pattern was evident for nonfamily but not for family firms. For family firms, formal training programs increased significantly during the critical growth phase only (20–49 employees). Gaps in employee training between the two types of firms were greatest at 50–99 employees but narrowed thereafter at 100–199 employees. Overall, the approach to employee training in family SMEs was in consonance with their slower growth, informal management styles, limited financial resources, and greater emphasis on efficiency compared with nonfamily SMEs.

Tsai (2010) examined the use of HRM practices and factors influencing the adoption of HRM practices in SMEs. Using a multiple-case study method, HRM in SMEs was explored by comparing 12 small and medium-sized and 12 large Taiwanese semiconductor design firms. Overall, the study provided three main findings. First, the SMEs had a surprisingly more sophisticated approach to HRM practices than what had been previously depicted in extant literature. Indeed, HR practices such as extensive training of employees, employee financial participation, formal performance appraisals, and formal disciplinary procedures were used at higher rate and in a more formalized way than expected. This finding showed that SMEs' approaches to employee management were not ad hoc and informal, as was believed. Second, the HR practices across the semiconductor firms were found to be very similar in many respects. This finding was consistent with the view of the new institutionalism, which proposes that firms in the same industry have homogenous organizational structure, process and output. Third, the homogeneity in HRM was driven by influences from both institutional and internal factors. The main institutional factors were the pressure from competitors and professionalization of senior management, whereas the internal factor was mainly related to

the characteristics of the skilled workforce. Overall, although the findings provided support for the view of the new institutionalism, they only provided partial support for the argument that firm homogeneity all stems from institutional pressures.

Razouk (2011) examined three hypotheses. First, whether HPWS influences current French SMEs' performance. Second, whether HPWS influences future French business units' performance, and finally the issue of reversed causality. The sample of this study consisted of 275 French SMEs. Moreover, HPWS was conceived like a whole of complementary HRM practices and not in terms of isolated practices, whereas firm's performance was studied through profitability, degree of innovation and social climate. Overall, the findings showed that HPWS was generally significantly and positively linked with profitability, innovation and social climate. In addition, the results of the longitudinal analysis showed that the companies adopted HPWS were not only able to obtain good current performance, but to also keep the same performance on the long run. This result confirmed the Resource Based View (RBV) hypotheses which suppose that a HR system may provide a competitive advantage and long-term better performances. Finally, the results indicated that a causal relation actually existed between HPWS and performance indicators retained for the purposes of this study.

Klaas et al., (2012) examined the impact of HPWS in SMEs. In addition, they examined whether the impact observed will be dependent on the small-business leader's capacity to obtain additional HR knowledge from an external expert, as well as on the leader's HR background and knowledge. For the needs of this research, archival and survey data were obtained from 294 US small-business organizations. Survey responses were obtained from both the small-business leader and an HR consultant assigned to the small business. Overall, the findings highlighted the potential for HPWS to affect firm-level outcomes in the small-business sector. Further, they highlighted the critical role played by the SME leader in determining how these practices actually affect outcomes, while both the knowledge possessed by the small-



business leader and their capacity to obtain knowledge found to be important. Finally, although a relationship was found between HR effectiveness and HPWS in small businesses, the mechanism underlying this relationship was not examined. Overall, the authors highlighted the fact that the mechanisms by which HPWSs affect outcomes within the small-business sector might be different as opposed to large, complex organizations.

Torre and Solari (2012), based on original information acquired by means of a survey performed on more than 100 Italian firms and an in-depth study of eight of them, analyzed the degree of adoption of HPWS, as well as aspects related to the processes of change towards HPWS in medium-sized firms. In summary, the main findings showed first that decision-making power on work organization was a prerogative of the owner and top management, while HRM functions played an important role mainly in the proposal-making stage. Second, change in smaller enterprises was managed autonomously by management, while worker involvement prevailed in larger enterprises. Finally, strategies for change concentrated mainly on clearly identified occupational groups and they did not translate into a true paradigm of change in organizational management as a whole. Overall, the results suggested that both internal (e.g., organizational and top-management culture, middle-management resistance to change) and external (e.g., customers, competitors) non-economic factors influenced the adoption of HPWS in medium-sized firms. Hence, as the authors stated, economic explanations that focus merely on the financial costs of organizational changes reveal only a small part of the SMEs story.

Gilman and Raby (2013) investigated the extent of, and comparative differences in, the nature of HRM practices in the UK and French SMEs using the HPWS model as a framework. The study was informed by a definition of an HPWS that comprised three components, namely high employee involvement practices, HR practices and reward and commitment practices. In summary, clear differences were noted regarding the type of HPWPs adopted by country and

a range of contextual variables including the nature of strategy, management and the firms' competitive environment. The national and institutional approach towards market economy, the role of regulation, and approaches to productivity and efficiency were shown to be very important in determining the nature and adoption of HPWPs. With respect to the differences between the two countries, whilst UK SMEs were found to adopt a wider range of practices, French firms exhibited a higher degree of integration portrayed through a collective range of practices that engendered employee participation and commitment.

Wu et al. (2015) explored the relationship between HPWS and performance in firms of different size, thereby extending understanding of congruence or 'best fit' theory within strategic HRM debates. With reference to management control theory, economies of scale and the availability of specialist managerial skills, the article hypothesized that while an HPWS–performance relationship might exist in small, medium-sized and large firms, the relationship will be stronger in large firms than in both small and medium-sized firms, and stronger in medium-sized firms than in small firms. The analysis of data was based on the British Workplace Employment Relations Survey (WERS2004). In summary, the analysis reported a positive association in large firms between HPWS and labor turnover, productivity and financial performance, while in small firms a positive relationship was identified between HPWS and labor productivity but not between HPWS and absence, employee labor turnover or financial performance. Perhaps most notable, however, there was no evidence of a relationship between HPWS and performance in medium-sized firms. Moreover, a stronger relationship was found between HPWS and performance in large firms than in medium-sized firms, but only limited evidence was found of a stronger relationship in large firms than in small firms. Finally, there was no evidence to support the hypothesis that the HPWS–performance relationship will be stronger in medium-sized firms than in small firms.

Overall, these results offered some notable implications for both the SME literature and for the strategic HRM theory. First, the differences in the HPWS–performance relationship between small firms and medium-sized firms (at least with regard to productivity outcomes) identified in this study added to the argument that it may be useful to view small firms and medium-sized firms as analytically distinct, and that this may facilitate a more nuanced understanding of HR issues within the SME sector. Moreover, the identification of a positive relationship between HPWS and labor productivity but not financial performance in small firms was notable given its consistency with arguments that while HPWS may have productivity-enhancing effects in small firms (and may therefore be important in helping firms transition from initiation to the growth stage of development), these effects will be cancelled out in financial terms by the higher labor costs associated with their adoption. In addition, the analysis found an association between HPWS and lower labor turnover in large firms but not in small firms. Indeed, labor turnover is considered to be a significant barrier to small firm success, hence the apparent inability of HPWS to address this barrier might be considered a matter of concern. Finally, with regard to the broader SHRM theory, the lack of an HPWS–performance relationship in medium-sized firms in the present analysis might be viewed as presenting a challenge to the view in much of the SHRM literature that there is a universal ‘best practice’ relationship between HPWS and performance. Instead, by suggesting that the HPWS–performance relationship changes as firms develop and grow, the analysis highlights the importance of the Organizational Growth and Development (OGD) lifecycle model. Furthermore, it also suggests that the OGD model provides a useful theoretical framework for the small extant body of literature on the contingent effects of firm size on the HPWS–performance relationship, and that there may be considerable value in developing and empirically testing theoretical propositions from it in future SHRM research.

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## **PART V**

Implementing HPWS in the

Service sector

## **5. HPWS implementation in the Service sector**

### **5.1 Introduction**

Since the mid-1990s, as is described in the previous sections of the present chapter, the majority of empirical studies examining the HPWS and organizational performance relationship focused primarily on the manufacturing sector. The initial studies were written chiefly from a managerial perspective, while more recently a body of work emerged, focusing on the implications of HPWS on employees' experience of work. However, and despite the development in the manufacturing sector, a notable gap in the literature - both mainstream and critical – concerned the lack of HPWS empirical research in the service sector (Harley et al., 2007). The most significant implication of this lack of studies in the service sector concerned the fact that manufacturing studies could not be generalized to service settings due to various issues, including differences in demography, occupational groups, technologies, work processes, the level of technically required interdependence among workers, and the role of the customer in the production process (Batt, 2002). Thus, although the service sector accounts for 60% of world gross domestic product (GDP) and dominates economies in most nations (Liao et al., 2009, p. 371), it was largely neglected.

Taking the preceding discussion into consideration, the present chapter of the thesis focuses on the service sector. First, it begins by providing some of the most important elements that characterize the service sector, and which differentiates it from the manufacturing one. Next, it provides the valuable contribution that HRM has to offer in the service context and its significant role towards achieving service quality. Finally, and before moving on to the thorough review of the healthcare sector which is the main focus of the thesis, the most important empirical studies are presented that examine the HPWS implementation in the broader service context.

## 5.2. Characteristics of the service sector

Overall, the unique characteristics of the service sector make it highly different from the manufacturing one. In general, the classic assumption in the service management literature is that goods and services production differ along several dimensions. A simple classification distinguishes between the consumption of output versus the consumption of a process (Gronroos 1990; Batt, 2007, p. 432). While typologies vary in degree of complexity and detail, most agree on four core differences between services and manufacturing as these were demonstrated by Regan (1963) on his four category typology. According to this typology, the services provided can be characterized by intangibility; inseparability; heterogeneity; and perishability (see also Redman and Mathews, 1998, pp. 59–60; Haynes and Fryer, 2000).

- To begin with, the most obvious thing about services is that they are ‘intangible’, or in other words, that they cannot be seen or touched. As a result, a consumer cannot really evaluate a service until it has been consumed. Hence, the role of the employee becomes much more critical since to a very real extent the employee is the service, given the absence of any tangible artefact. Overall, employees carry the responsibility of projecting the image of the organization and customer satisfaction lies on employees’ hands.
- ‘Inseparability’ suggests that services cannot be separated from the service provider. Thus, getting close to the customer is an unavoidable feature of service encounters. Overall, this characteristic implies that customers have the opportunity to observe the detail of service provision (which includes significant interpersonal aspects such as non-verbal behavior and linguistic ability), whereas the encounter itself is the method for persuading, negotiating or damaging a customer relationship.
- ‘Heterogeneity’ and variability implies the simple fact that the services are different each time they are performed. Indeed, both the service provider and the customer are

liable to introduce variation to the service, either by providing a service that deviates from the norm, or by failing to articulate the needs.

- The last characteristic, 'perishability', simply means that if a service is not consumed, it will disappear. Hence, this is an economic cost to the organization that cannot be recovered and is critical to its survival. Overall, perishability is a concern to all service providers but the method of managing this process varies considerably.

Moreover, and taking into consideration that service activities are more intangible than the outcomes of the manufacturing sector, quality and productivity are difficult to measure. For instance, and based on the preceding four category typology, service activities involve the co-production between a customer and provider. As a result, the heterogeneous preferences of customers make it difficult to standardize production without jeopardizing quality and customer satisfaction. In turn, perishability of output and simultaneity of production and consumption make demand management through inventory systems more difficult and put a premium on first-time quality. These dimensions of customer contact work translate into relatively high levels of uncertainty and unpredictability (Batt, 2007, p. 432).

Overall, the preceding four services' characteristics imply a critical importance for the producer-consumer interaction within the service offer in determining the customer's perceptions of service quality, which is most frequently defined as exceeding the customer's expectations. Service quality is regarded as an important antecedent of business performance in the service industry (Chand, 2010, p. 553). Indeed, quality of service is essential for customer satisfaction, repeat purchases, winning customer loyalty and customer retention, while it also affects companies' profitability (Malhotra and Mukherjee, 2004, p. 165). On the other hand, achieving service quality is not as easy as one might think, and certainly the usefulness of the Human Resources Management department could be extremely valuable.

### 5.3 The usefulness of HRM in the service context and its role towards achieving service quality

Empirical research on quality in services showed that customers value several dimensions of quality. For instance, the SERVQUAL instrument which was originally designed to measure customers' ratings of service quality (Parasuraman et al., 1988; see also Zeithaml et al. 1990) lists five dimensions, namely tangibles, reliability (consistency), assurance (how confident the customer is about the service being provided), responsiveness (to the customer's demands), and empathy (for the customer). Overall, while the operations management department of a given organization could improve the quality of tangibles and the reliability of products, the remaining dimensions of service quality are primarily dependent on the employees' capabilities. Specifically, the latter three dimensions, which account for almost 60 percent of customer satisfaction scores, are related to the ability of employees to respond effectively to customers. Therefore, it could be argued that service quality depends to a great extent on the effectiveness with which front-line employees deal with customers and clients (Tsaur and Lin, 2004, p. 471). In this process, effective HRM can be vital. In particular, when employees feel well treated by management's HR practices, they can devote their energies and resources to effectively treating clients (Tsaur and Lin, 2004, pp. 472, 473). Hence, it could be argued that strategies to improve service quality and customer satisfaction are highly dependent on investments in human resource systems. Indeed, in order for front-line employees to provide high-quality service, organizations need to design a work system that ensures that employees have the knowledge, skills, and abilities, as well as the motivation, to meet customer needs (Liao et al., 2009, pp. 373-374). As has been suggested, these systems of HR practices should include selection, training, work designed to allow discretion for employees, and rewards to induce discretionary effort (Batt, 2007, p. 435).

On the other hand, it should be noted that the special characteristics of services have their toll on human resource management. Indeed, for human resource management, the intangibility of service activities and the lack of clear measures of quality and productivity make it difficult to set specific goals for employees and evaluate and reward their performance based on those goals. Moreover, the simultaneity of service processes and outcomes and customer involvement in service production, renders it impossible to do a quality control check after production so as to ensure quality as compared to the manufacturing setting (Schneider et al., 1998). In addition, the simultaneity of production and consumption implies that demand forecasting is unpredictable, and in turn, determining appropriate staffing levels is a challenge. Furthermore, it also suggests that first-time quality is particularly important. For instance, poor health care cannot be returned for repair. Last but not least, the co-production function implies that the customers may also be viewed and managed as ‘human resources’ (Batt, 2007, p. 435).

Overall, it could be argued that the performance of front-line employees, or their behaviors of helping and serving customers to address their needs, influences directly customer satisfaction with the service quality. As a result, management needs to evaluate the effect of HR policies on customer behavior as well as on employee behavior and motivation, in order for front-line employees to be able to provide high-quality service. Taking the preceding discussion into consideration, it can be concluded that that human resource management is particularly important in service activities, whereas simple ‘command and control’ approaches can be relatively ineffective.

#### 5.4. Additional challenges for the service sector

Researchers have identified some additional challenges of significance importance that the service sector faces. All these additional issues reveal that the implementation of HRM in service context might face significant barriers that should be taken seriously into account. For



instance, Boxall and Macky (2007) noted a significant difference between the manufacturing and the service sector. As they argued, modern high-tech manufacturing has the capability to achieve better quality and lower prices, while also investing in employee development and retention. In contrast, improvements in quality in the service industries translate automatically to price premium. As can be assumed, in case that customers are not willing to pay for this price increases, the options for HR strategy are constrained.

Moreover, as Harley et al. (2007) suggested, the fact that the largest part of the research literature regarding the implementation of the HPWS has been focused on the manufacturing sector as opposed to the service sector can be explained by the limits to the applicability and effectiveness of this approach in the service context. Indeed, employment in the service sector is usually divided into high-skill and low-skill segments. In these low-value / low-skilled segments of the sector where work can be standardized to deliver a standard product, the general work can be characterized by 'Taylorist' practices. In contrast, in the high-value segments, workers may enjoy more humanistic HR practices, where benefits will arise from increased autonomy and flexibility as opposed to low-skilled workers. Thus, these differences between work groups might prohibit the widespread HPWS implementation in the service sector.

Last but not least, as Hogue (1999) noted, the heterogeneity of the service sector can be quite problematic especially for researchers. Indeed, the service sector is comprised by financial companies, retailing operations, transport operations, leisure activities and healthcare. Thus, generalizations about services are potentially meaningless unless care is taken within empirical analysis to use accurate industry controls and a sample representative of all service-sector firms. Therefore, industry-by-industry analysis, rather than an analysis of the services 'en masse', will probably be the more illuminating.

In summary, the preceding discussion demonstrated the special characteristics that the service sector entails, it depicted the importance of the HRM in the service context and its significance in achieving service quality, and finally, it presented some of the most notable barriers that might cause difficulties in implementing systems of HR practices in this sector. Next, and before continuing the analysis on the healthcare context, we believe it is essential to present some of the most important empirical studies - to the best of our knowledge - that focus on the service sector.

## 5.5 Empirical studies focusing on the broader service sector

To begin with, Batt (2002) examined the relationship between HR practices, employee quit rates, and organizational performance based on a nationally representative stratified sample of US call-centers. The findings in this study showed that greater use of high-involvement practices was associated with lower quit rates and higher sales growth in customer service and sales centers. In addition, quit rates partially mediated the relationship between high-involvement practices and sales growth. Hence, the findings were consistent with the idea that high-involvement practices have a direct effect on employee performance, and an indirect effect on performance via lower quit rates. Moreover, the relationship between high-involvement practices and sales growth was moderated by the identity of an establishment's primary customer base. Specifically, high-involvement practices were associated with higher sales growth in small business and residential centers, whereas in large business centers, high-involvement practices appeared to be the price of entry and to affect sales growth primarily indirectly, through quit rates.

Wood et al. (2006) used data from a sample of 145 UK call centers, and tested the core propositions of the SHRM approach. Specifically, the authors examined first the existence of

coherent links through the SHRM chain from strategy, through operational requirements, to work design and human resource management, and second the proposition that the fit between the HR practices and market factors determines organizational performance. In summary, the findings did not support the linear chain model of SHRM practice. Specifically, the links between HR and performance were not statistically strong, whereas market context or strategy did not moderate the relationships between HR practices and performance measures. In general, no evidence was found neither for the institutional influences on the adoption of HR practices nor for the resource-based theory of performance. On the other hand, the findings showed that key operational requirements were linked to work design, which was in turn related to a limited number of HR practices. Moreover, the direct effects of work design on key performance indicators were more pronounced than those of human resource practices. Overall the study suggested a move away from an overconcentration on the relationship between HR practices and performance, and suggested that the focus should be more on examining the specific relationships among both work design characteristics and HR practices, and between these and particular performance criteria.

Batt and Colvin (2011) examined the relationship between alternative approaches to employment systems and quits, dismissals and customer service, based on cross-sectional and longitudinal data (1998 and 2003 samples) from nationally representative surveys of call center establishments. According to the findings, employers that made greater use of high involvement work organization experienced significantly lower quits, dismissals, and total turnover. In addition, those that invested more in the workforce and offered long term incentives (e.g., internal promotion opportunities, high relative pay, pensions, and full-time jobs) experienced significantly lower quits, dismissals, and total turnover. Moreover, those workplaces featuring higher short-term performance pressures (intensive performance monitoring and commission-based pay) experienced significantly higher rates of quits,

dismissals, and total turnover. Analyses using longitudinal data with lagged HR variables from time 1 predicting quits, dismissals, and total turnover at time 2 provided consistent evidence for these relationships. Finally, employers who made greater use of high involvement work organization had significantly higher customer satisfaction rates, while those with higher quits and higher total turnover had significantly lower satisfaction rates.

Combs et al. (2006) acknowledged the growing evidence linking HPWS with organizational performance and used meta-analysis not only to estimate the effect size but also to test whether effects were larger for (a) HPWP systems versus individual practices, (b) operational versus financial performance measures, and (c) manufacturing versus service organizations. Overall, for the needs of their analysis they examined a set of 92 studies incorporating a total of 19319 organizations. According to the findings, systems of HPWPs had stronger effects than individual HPWPs. Moreover, the findings not only validated previous arguments regarding the existence of a relationship between HPWS and organizational performance, but more importantly, they offered researchers a baseline estimate of its size. Overall, it was estimated that organizations could increase their performance by 0.20 of a standardized unit for each unit increase in HPWP use. In addition, it was also summarized that HPWP systems not only improved effect sizes, but context also mattered. Indeed, the effect size among manufacturers was almost twice as large as among services.

Bartel (2004) examined the relationship between HRM and establishment performance, based on a longitudinal dataset collected through site visits to branch operation of a large bank in Canada. Specifically, the resulting sample consisted of 160 branches, 150 of which had two years of data and 10 of which had three years of data. The findings showed that employees' perceptions of the performance feedback and recognition system at their branch - that is, the incentives dimension of a high-performance work system - had a positive and statistically significant relationship with branch performance, as measured by its sales of loans. In addition,

there was a positive effect of the quality of communications between the manager and the staff and among staff members, a component of the ‘opportunity to participate’ dimension of a high-performance work system. Overall, the combination of the branch visits and the econometric results supported the notion that branch-level performance in the banking industry can be influenced by specific human resource management–related actions.

Liao et al. (2009) extended the HPWS literature by differentiating management and employee perspectives of HPWS, and examined how the two perspectives related to employee individual performance in the service context. For the needs of this study, data was collected in three phases from multiple sources involving 292 managers, 830 employees, and 1.772 customers of 91 bank branches. Overall, the findings revealed significant differences between management and employee perspectives of HPWS. Moreover, there were also significant differences in employee perspectives of HPWS among employees of different employment status and among employees of the same status. Furthermore, employee perspective of HPWS was positively related to individual general service performance through the mediation of employee human capital and perceived organizational support, and was positively related to individual knowledge-intensive service performance through the mediation of employee human capital and psychological empowerment. At the same time, management perspective of HPWS was related to employee human capital and both types of service performance. Finally, employees’ overall knowledge-intensive service performance at the branch level was positively related to customer overall satisfaction with the branch’s overall service quality.

Guchait and Cho (2010) investigated the impact of a bundle of eight HRM practices on intention to leave, as well as the mediating effect of organizational commitment on the proposed relationship, based on a service organization in India. Overall, a total of 131 employees responded to the survey. In summary, the study not only found that the HRM practices reduced employees’ intentions to leave, but also that organizational commitment

partially mediated this relationship. Finally, the results of the study not only supported the argument that organizations should focus on employee perceptions of the organizations' HRM practices, but also indicated that human resources should go beyond establishing policies and procedures to providing an employee-friendly work environment.

Katou and Budhwar (2012) investigated the impact of HR practices on organizational performance through the mediating role of psychological contract (expressed by the influence of employer on employee promises fulfillment through employee attitudes). The study was based on a national sample of 78 organizations from the public and private services sector in Greece, including education, health, and banking. Overall, 348 employees responded. The findings of the study suggested that employee incentives, performance appraisal, and employee promotion were the three major HR practices employed. Furthermore, the study suggested that the organizations must primarily keep its promises about a pleasant and safe working environment, respectful treatment, and feedback for performance, in order for employees to largely keep their own promises about showing loyalty to the organization, maintaining high levels of attendance, and upholding company reputation. Additionally, the study argued that the employee attitudes of motivation, satisfaction, and commitment constituted the nested epicenter mediating construct in both the HR practices–performance and employer–employee promise fulfillment relationships, resulting in superior organizational performance. Finally, the study supported the view that there is no universalistic model, but, in contrast, there are contingency models depending on organizational and individual factors influencing the HR practices–psychological contract–organizational performance relationship.

Chang (2015) examined the process linking HPWS and organizational ambidexterity both at the unit and firm level of analyses by integrating strategic HRM, human capital and social capital perspectives. Organizational ambidexterity refers to the capacity of an organization to simultaneously utilize existing market opportunities efficiently, and to initiate creative and

innovative solutions to meet future market demands. Human capital refers to the knowledge, skills and abilities of individual employees that are valuable to the firm, while the social capital perspective refers to the social climate within a firm which is vital for increasing interaction and information exchanges. For the needs of this study, multisource and multilevel data from 2,887 employees and 536 managers of 58 banks was collected. The findings revealed that firm-level HPWS was positively related to unit-level employee human capital. In turn, unit-level employee human capital partially mediated the relationship between firm-level HPWS and unit organizational ambidexterity, whereas firm-level social climate moderated the effect of firm-level HPWS on unit organizational ambidexterity through unit-level employee human capital. Overall, this paper contributed to HPWS and ambidexterity research by revealing the impacts of firm-level HPWS and mediating mechanisms, as well as by identifying boundary conditions for pursuing unit-level organizational ambidexterity.

Cooke et al. (2016) drawing on the job demands-resources model and strategic / high-performance human resource management theory, examined the relationships among HPWS, employee resilience and engagement. Resilience is defined as one's ability to adapt effectively in the face of severe adversity in which it allows for the restoration of equilibrium, whereas work engagement has been conceptualized as 'a multidimensional construct defined as a positive, fulfilling, work-related state of mind that is characterized by vigour, dedication and absorption'. For the needs of their study they used a sample of 2040 employees in the Chinese banking industry. Overall, the findings provided support for all three hypotheses. First, a positive relationship was found between HPWS and employee resilience. Hence, it was indicated that HRM practices have indeed the potential to enhance employee resilience particularly through skill development and formal systems of employee support. Second, a positive relationship was found between employee resilience and engagement. Thus, it was indicated that through personal qualities such as resilience, employees can become more

engaged as they may have greater ability to control their work environment. Finally, resilience mediated the relationship between HPWS and employee engagement. In summary, these findings enhanced the understanding of the process through which HPWS may impact employee resilience and engagement. Thus, the key message is that employee resilience can be viewed as a set of skills and attributes that can be developed through the effective use of HPWS to benefit both individuals and the organization.



## **5.6 HPWS implementation in the Healthcare sector**

### **5.6.1 Introduction**

Despite the fact that the stronger HPWS effects have been recorded mainly in the manufacturing, and secondarily in the service sector, there is mounting evidence indicating positive relationships between HPWS, employee attitudes and outcomes, and organizational performance in health care. It should be noted, however, that the systematic demonstration of evidence did not appear until few years ago (e.g., Harley et al., 2007; Leggat et al., 2010; Ang et al., 2013). Indeed, the global health system reform agenda had neither recognized nor addressed the basic human resource management issues that would enable HPWS in health care organizations (Leggat et al., 2011).

In more detail, during the last 25 years, health reform has focused largely on structural change, cost containment and the introduction of market mechanisms. Reform has been accompanied by an emphasis on consumer choice, but the importance of the management of HR has often been overlooked. Ironically, while HR has been downplayed or been seen as a bureaucratic barrier to be overcome, the wider literature on HR has taken a rather more upbeat tone with HR seen, within the scholarly community at least, as being of key strategic importance. Indeed, taking into consideration that salaries and wages still account for over two-thirds of the total operating budget of health care organizations, the efficient and effective management of hospital staff should become a priority (Townsend and Wilkinson, 2010). In addition, taking into account that both the number and cost of health care consumables (drugs, prostheses and disposable equipment) are rising astronomically, it goes without saying that the costs of health care will be increased drastically. As a result, all of these expenditures in the healthcare area might affect the ability to hire and sustain effective practitioners (Kabene et al., 2006). Therefore, there is a growing recognition by many healthcare managers nowadays that

healthcare quality improvements are unlikely to come from further system restructuring and that a focus at a micro-level on people management is becoming more valuable (Bonias et al., 2010; Zhang et al., 2013; Bartram et al., 2014).

In addition, and with respect to HRM, another major issue recognized thus far is the limited understanding of how the various components of systems of HRM (such as HPWS) are used to impact on the care delivery, and how they ultimately influence patient outcomes (Leggat et al., 2010). Indeed, an understanding of how HPWS can influence patient outcomes is of significant importance. For instance, there has been evidence suggesting that decreased organizational commitment and job satisfaction among healthcare employees is associated with declining quality of patient care (e.g., Aiken et al., 2001; Bonias et al., 2010; Leggat et al., 2010). Hence, the arising question is whether HPWS can have an impact on these attitudes and behaviors directly, or indirectly through other mediating variables. Thus, in a labor intensive industry such as healthcare, it is crucial to examine not only the antecedents of employee attitudes and behaviors (Young et al., 2010), but also their consequences on various employee and patient outcomes, such as healthcare performance.

Finally, as was described in the previous chapter regarding the usefulness of HPWS in the service context and its role towards achieving service quality (pp. 122-123), services with particularly intensive and personal contact lend themselves to situations in which customers take on very powerful roles. This is especially true in the healthcare, which is a very personal service that intimately affects the lives of its consumers (Schneider and White 2003; Maas and Graf 2005).

Overall, it has been argued that a labor intensive, highly motivated, highly skilled professional workforce, as in the healthcare sector, should be an ideal context for the successful implementation of HPWS (Young et al., 2010, p. 183). Indeed, and despite the potential difficulties of practicing HRM in in the health care sector, recent writers have highlighted the

value of people management practices in healthcare that directly support other goals such as providing a quality and safe service and hence improving healthcare performance and patient outcomes (e.g., Bonias et al., 2010; Fan et al., 2014).

Taking the preceding discussion into consideration, the rest of the chapter presents a thorough overview of the HPWS implementation in the healthcare context. In more detail, the following section is structured as follows. First, in an effort to depict the so far developments in this sector, we review some of the most important empirical studies in healthcare that focus on the relationships between HPWS, employee attitudes and patient outcomes. Next, we distinguish those studies that examine the effects of HPWS on employees' burnout and emotional labor. Taking into consideration that employees' burnout and emotional labor attracts an increasingly amount of researchers' interest, it is deemed important to present these theories in more depth. The following part of the empirical review presents the effects of innovative systems of HR practices on the quality of patient care. Taking into account that various measurements have been proposed in evaluating healthcare quality – such as mortality rates and patient satisfaction - it is important to present the theoretical background behind this highly important outcome for the healthcare context in more detail. The next sub-section highlights the critical role that managers at all levels of an organization have to play, in communicating the HR messages throughout the organization. Finally, the present chapter concludes by presenting two conceptual models developed by researchers in an effort to examine the actual mechanisms and processes through which high performance work practices influence healthcare outcomes.

### 5.6.2 Empirical studies focusing on the healthcare context

Preuss (2003) used data on registered nurses and nursing assistants in 50 acute-care hospital units in the US, and explored the relationships among HPWS, information quality, and

performance quality within a context shaped by equivocal information - information that can be interpreted in multiple and sometimes conflicting ways. The results showed that the quality of information available for decision-making, largely dependent on the interpretative skills of the workers who were exposed to important equivocal information, partially mediated how employee knowledge, work design, and total quality management systems affected organizational performance (measured as the inverse of medication error incidence). Hence, it was concluded that providing employees with extensive relevant knowledge and enabling them to use their skills during even seemingly routine tasks improves the effective quality of information they bring to decision-making, and thereby promotes high performance quality.

Harmon et al. (2003) examined the effects of HIWS on employee job satisfaction and service costs in 146 US Veterans Health Administration centers. Specifically, they argued that although the adoption of HIWS may be associated with some higher short and long-term expenses, the multiple positive effects (employee job satisfaction) it generates might reduce the overall costs. Indeed, the results showed that HIWS was associated with higher employee satisfaction, which in turn was related to decreased costs.

Kabene et al. (2006) addressed the importance of human resources management (HRM) in improving overall patient health outcomes and delivery of health care services. For the purposes of their study, they explored the published literature and collected data based on the health care systems of Canada, the United States of America, Germany and of various developing countries. According to the results of the study, three main health system inputs were identified, namely human resources, physical capital and consumables. As the researchers noted, given that with sufficient resources any country can obtain the same physical capital and consumables, it is clear that the main differentiating input is the human resources. Indeed, this is the input that is the most difficult to develop, manage, motivate, maintain and retain, and this is why the role of the HR professionals is so critical. In summary, and given the significant

changes that globalization of health care can introduce, this study highlighted the importance of involving HR professionals at the highest level of strategic planning. By being actively involved at the strategic levels, they can ensure that the HR issues are raised, considered and properly addressed. Overall, this paper revealed the essential role that HRM has to play to any health care system. Finally, the authors concluded that proper management of human resources is critical in providing a high quality of health care.

Harris et al. (2007) compared the evidence from a range of reviews concerning the links between human resource management (HRM) and performance. Overall, the authors acknowledged the relationships between a range of HRM practices, policies systems and performance. However, they also noted that despite being an important concern for HR professionals, there was little information – at the time - regarding the processes through which HRM affected individual performance and its consequent impact on patient care. As a result, the authors proposed further research on the psychological processes through which HRM affects individual performance.

Scotti et al. (2007), based on a national sample of 113 US Veterans Health Administration (VHA) ambulatory care centers, examined how a HPWS approach to the work environment of healthcare employees may lead to exceptional service quality, satisfied patients, and ultimately to loyal customers. The results showed first that HPWS was linked to employee perceptions of their ability to deliver high-quality customer service, both directly and through their perceptions of customer orientation. Second, employee perceptions of customer service were linked to customer perceptions of high-quality service, and finally perceived service quality was linked with customer satisfaction. In summary, this investigation demonstrated a strong linkage between HPWS and patient perceptions of service quality and satisfaction. Furthermore, it was found that enhancing service quality and customer satisfaction contributed to cost efficiency, rather than inflating costs.

Harley et al. (2007), based on 1318 employee responses in Australia provided support for the 'mainstream' perspective. Specifically, they showed that HPWS was associated overwhelmingly with positive outcomes for employees, and more specifically, these systems contributed to employee autonomy, organizational commitment, and job satisfaction, which in turn contributed to superior organizational performance. Moreover, the findings showed that low-skilled workers were no less likely than high-skilled workers to benefit from the HPWS implementation, whereas in some cases, HPWS was associated with more positive outcomes for low-skilled than for high-skilled workers.

Leggat et al. (2008) based their research on the increasing evidence of a link between good people management practice, and organizational and patient outcomes in public health care to document the important human resource management practices in hospitals. The design of the research included large-scale survey of hospital managers' perceptions of the use of HRM practices. Specifically, the survey was based in Australian healthcare organizations. In summary, the study found limited evidence of sophisticated HRM practices among hospitals and hospital organizations. Despite the increasing evidence of a relationship among effective HRM and health-care outcomes, these hospitals reported limited performance management, training and development, and employee empowerment and decision-making.

Harley et al. (2010) utilized survey data of 974 employees working in the Australian aged-care industry, and showed that HPWS contributed to positive experiences of work (affective commitment, job satisfaction, and emotional exhaustion) through enhancing order and predictability at work. In summary, the authors concluded that among skilled workers with a strong professional service ethos and of high quality jobs, HPWS practices could deliver benefits to workers.

Townsend and Wilkinson (2010) highlighted the importance and complexities of HRM in hospitals throughout the world. Thus, in their article they looked at four different but

overlapping areas of HRM that were believed to be of sustained or of growing interest for practitioners and scholars researching in hospitals. These areas included HRM and strategic climate, the role of ward managers, retention and turnover of staff, and the growing complexity of managing network organizations. In summary, the authors underscored the importance in understanding the way in which people should be managed within health care organizations. Towards this path, as they noted, the literature has begun to draw on ideas from the high-performance paradigm (p. 336). Finally, the authors highlighted that fact that the demands on the sector will be such that there will be continuing pressure to achieve efficiency and other performance targets, which will feed through to managers and staff. Thus, the management of HR will be vital to the success of management initiatives.

Veld et al. (2010) focused on the 'ward' level of a large Dutch hospital and examined how hospital employees perceived intended strategic goals and HRM, and whether these perceptions generated the desired effects, or in other words how employees within a hospital could add value. Specifically, it was expected that a climate for quality (emphasis on providing good quality care) and a climate for safety (emphasis on employees' safety and health) would be distinguished, both of which would ultimately lead to safer and better quality of care, and to a positive influence on ward-level commitment. The sample of this study consisted of 576 respondents from 59 wards. Overall, the findings showed that the perceived HR system did have a significant influence on both climate dimensions, suggesting that the overall message of the HR system was important for creating strategic climates. Finally, the climate for quality partially mediated the relationship between the perceived HR system and commitment.

Etchegaray et al. (2011) conducted a narrative review of the literature to understand how previous researchers measured HPWS in health care settings and what relationships existed between HPWS and outcomes. In summary, the analysis showed that variability existed not only on the number of factors researchers used to measure HPWS, but also on the number of

practices that comprised those factors. In addition, the relationship between HPWS and outcomes seemed to be positive, with most of the studies examined demonstrating favorable results. However, it was concluded that much more research is needed linking HPWS with patient safety to provide insight into the potential importance of this relationship. Finally, and taking into consideration the concerns regarding the measurement issues with regard to HPWS, the authors suggested the creation of a comprehensive and psychometrically sound measurement tool for HPWS in health care settings.

Weinberg et al., (2012) examined the benefits of a High Performance Work Environment (HPWE) for employees, patients, and hospitals. Work environment is defined as *'being comprised of a bundle of practices designed to promote broader worker engagement and organizational commitment. It also encompasses managerial practices, such as an emphasis on worker discretion and participation in decision making; facilitation of communication and information sharing; and human resource management practices focused on developing workers' skills and recruiting and retaining qualified workers'*. Based in the hospital setting, it was hypothesized that a HPWE would be positively related to desirable work processes, such as collaboration and empowerment, retention, job satisfaction and actual turnover, and care quality. Data were collected from 45 units across 9 hospitals and 7 health systems in upstate New York. In summary, this study demonstrated the potential value of examining high performance management practices as central components of a supportive work environment. Furthermore, the findings showed that HPWE, as perceived by multiple occupational groups on a unit, was significantly associated with desirable work processes, retention indicators, and care quality. Overall, these findings underscored the potential benefits for providers, patients, and health care organizations of designing work environments that value and support a broad range of employees, as they can contribute essentially to the care process and their organizations.



Lee et al. (2012) empirically tested the effects of HPWS on employee attitude, service quality, customer satisfaction, and customer loyalty in health-care organizations. Based on data collected from 196 pairs of employee–customer respondents in four selected hospitals in South Korea, the results indicated that hospitals can improve customer satisfaction and loyalty through efficient operations, employee engagement, and service quality through HPWS. In summary, the results supported the hypotheses that all of the efforts to improve customer satisfaction and customer loyalty were related to perceptions and attitudes of medical staff. Thus, it was concluded, it is essential for hospitals to improve employee reaction to organizational support for their work through training and education, communication, and compensation. Last but not least, it was also revealed that among the seven items presented in the study, salary and promotion were ranked first and second, respectively, as important factors for job satisfaction.

Bartram and Dowling (2013) reviewed 10 papers that examined the HRM/HPWS-performance chain from both qualitative and quantitative approaches across different national and institutional contexts (UK, Australia, and China). The analysis showed that the implementation of HRM and HPWS in the health care sector in many western countries suffered from three critical challenges. First, despite the overwhelming evidence of the beneficial outcomes of HRM and HPWS in health care, there was little evidence suggesting that the health care system reform agenda had recognized basic HRM issues that would enable HPWS in health care organizations. Second, health care occupations had the tendency to be craft-based with little perceived need for management. Third, there was little incentive for health care clinicians to drive the implementation of HRM/HPWS at their workplaces, mainly because existing institutional structures in the form of professional colleges and trade unions (particularly in Australia and the UK) had the potential to stifle any changes. Last but not least, the authors proposed ways to reduce barriers of the implementation and operation of HRM in

the health care sector, including more research (both qualitative and quantitative) in the HPWS – employee attitudes and behaviors relationship, and data collection based on multiple responses rather than using a single respondent. Finally, as the authors noted, a better understanding is needed on how the HRM system is translated, understood and transmitted within and across the organizational hierarchy, as well as on the contribution of HRM towards achieving the organizational goals and improving individual and hospital performance.

Lee et al. (2015) focused on the effects of high-involvement work practices (HIWPs) on relational outcomes with customers (patients). Specifically, they proposed that HRM practices designed to increase employees' involvement at work would reduce the level of organizational conflict among employees, which, in turn, would reduce employees' conflict with patients and their families, which is an important measure of customer service and quality of care. The authors focused on two types of organizational conflicts, namely task conflict and relationship conflict. Task conflict has been defined as the manifestation of divergent ideas, views or opinions regarding work issues, whereas relationship conflict, has been defined as interpersonal tensions and personal incompatibilities over matters such as beliefs, values, habits and personalities. For the specific analysis, the authors used a two-wave longitudinal survey of 378 patient care providers at 20 US nursing homes. Overall, the results provided strong support for the mediating role of organizational conflict among employees by documenting that the negative effect of HIWPs on employees' conflict with patients and their families was mediated by the reduced levels of task conflict and relationship conflict among employees. The study's findings shed new light on the relational mechanism through which HR practices affect employees and customers.

Gkorezis et al. (2016) examined the mediating and moderating mechanisms in the relationship between HPWS and intention to leave. Specifically, they encompassed organizational cynicism as an underlying psychological mechanism that mediates this

relationship. Organizational cynicism has been described as a negative attitude toward one's employing organization in general, and toward its procedures, processes, and management, and is based on a conviction that these elements generally work against the employee's best interests. In addition, the authors explored the moderating effect of educational background in predicting nurses' attitudes (cynicism) and behaviors (intention to leave). In general, it has been argued that educational background affects an individual's way of thinking and behaving. Overall, results from a sample of 299 private nurses across four private hospitals in Cyprus supported the moderated mediation model. Thus, it was demonstrated that organizational cynicism mediates the relationship between HPWS and intention to leave, while this indirect effect was dependent on nurses' HRM-related educational background.

### 5.6.3 Burnout: Emotional exhaustion and disengagement from work

As has been demonstrated through the literature, researchers have generally suggested a positive relationship between HPWS and employee well-being. During the last years, however, researchers in the healthcare sector have turned their attention towards the relationship between HPWS and burnout. Indeed, although the amount of empirical evidence is still limited, studies seem to suggest a negative relationship between HPWS and employees' burnout. Taking into consideration that burnout has been linked to negative organizational outcomes, research on how to reduce burnout is extremely important.

Burnout is a psychological syndrome that involves losing concern for the people with whom one is working and is commonly associated with workers in 'caring' professions (Maslach 1978, 1982). According to the Maslach Burnout Inventory (MBI), burnout includes three components, namely feelings of emotional exhaustion, a tendency to depersonalize others, and diminished feelings of personal accomplishment in working with others (Maslach, 1982; Maslach and Jackson, 1981). However, the MBI was developed exclusively for use in human

services professions, and thus, the three subscales of the MBI were applicable only to employees working with other people (Demerouti et al., 2003). Hence, several adaptations of the MBI have been proposed, such as the Oldenburg Burnout Inventory (OLBI, Demerouti et al., 2003). According to the OLBI, burnout should include two dimensions, namely 'emotional exhaustion' and 'disengagement from work'. Specifically, 'emotional exhaustion' is defined as a consequence of intensive physical, affective, and cognitive strain, whereas 'disengagement from work' refers to distancing oneself from one's work and experiencing negative attitudes toward the work object, work content, or one's work in general (Demerouti et al. 2010, p. 210).

Overall, burnout in nursing is regarded as particularly important among scholars and practitioners, since it has been linked to several negative organizational outcomes, including lower organizational commitment among nurses (e.g., Leiter and Maslach, 1988), increased turnover and absenteeism (Jackson et al., 1986; Firth and Britton, 1989), intention to leave (Jourdain and Chenevert 2010), lower quality of patient care (Aiken et al., 2002), tendencies to withdraw from clients and take longer breaks, and decreases in job performance ratings (Maslach and Jackson, 1985; Wright and Bonett, 1997). As can be expected, any of these behavioral outcomes of burnout can be costly to an organization (Zellars et al., 2000). On the other hand, although burnout seems to result in chronic emotional exhaustion, cynicism, detachment from work and feelings of ineffectiveness on the job (Laschinger et al., 2003), and has been a pervasive organizational problem with significant costs in terms of health and organizational consequences (Laschinger et al., 2003), there has been little research exploring how to reduce burnout through appropriate HRM strategies (Zhang et al., 2013), with few exceptions. Taking the preceding discussion into consideration, the remaining of this section presents some of the most important empirical studies - to our knowledge - focusing on the relationship between HPWS and burnout in the healthcare sector.

To begin with, Bartram et al. (2012) explored the relationships between perceived HPWS, emotional labor, burnout and intention to leave among 183 nurses in Australia. Emotional labor can be described as any effort by employees to display behaviours expected by their employer and/or customers that may conflict with their own emotional state. In summary, the findings showed that emotional labor was positively associated with both burnout and intention to leave, whereas burnout mediated the relationship between emotional labor and intention to leave. In addition, perceived HPWS not only reduced the strength of the negative effect of emotional labor on burnout but also had a unique negative effect on intention to leave. Overall, these findings highlighted the importance of HPWS, suggesting that positive perceptions of HPWS might buffer the effects of emotional labor on burnout. In addition, the findings suggested that job demands, such as emotional labor, might result in burnout and ultimately in nurses wanting to leave their stressful workplace. Hence, in the absence of job resources to counteract these job demands, such as HPWS, emotional labor is likely to lead to burnout and negative health outcomes. Thus, it was concluded that HPWS represents a promising managerial strategy to ameliorate the negative consequences of emotional labor.

Ang et al. (2013) using a multi-level analysis of a sample of 193 employees matched to 58 managers in a regional Australian hospital, examined the effects of management and employee perceptions of HPWS on employee engagement, job satisfaction, affective commitment and intention to leave. These relationships were examined across four distinct occupational groups, namely nurses; doctors and allied health professionals; management and administrative services; and support services such as catering, laundry and environmental services. The findings suggested that only when management's implementation of HPWS is similar to employees' espoused HR practices, HPWS is translated into greater engagement, job satisfaction, affective commitment and less intention to leave. Finally, the findings also

demonstrated the disparate effects of employee-perceived HPWS across the four occupational groups.

Zhang et al. (2013) introduced the perceived nature of the employee–employer relationship (social or economic exchange) as a moderator to understand the complex mechanisms through which HPWS may influence employee well-being. ‘Economic exchange’ refers to financially oriented, impersonal and short-term interactions, involving little social and emotional aspects of the employment relationship such as feelings of obligation and trust. ‘Social exchange’ refers to the long-term oriented employment relationship with open-ended and diffuse obligations, involving mutual emotional investment and trust between employers and employees. Overall, this study was based on data collected from a sample of 207 clinicians (medical practitioners and nurses) and administration staff in six Chinese hospitals. In summary, the findings demonstrated that HPWS could lead to either work engagement or emotional exhaustion, depending on employee perceptions about the nature of the employee–employer relationship. Indeed, the economic exchange perception increased the possibility for HPWS to lead to employees’ emotional exhaustion, while the social exchange perception increased the possibility for HPWS to lead to employee work engagement. Overall, the results indicated that HPWS has the potential to lead to work engagement or emotional exhaustion, depending on employees’ perception of the nature of the employee–employer relationship. However, and given that HPWS is not implemented in isolation and is influenced by many factors, the variations of HPWS in terms of motives, understanding, designs and implementation could lead to different employee perceptions and responses.

Finally, Fan et al. (2014) examined the impact of HPWS on two psychological outcomes for employees, namely subjective well-being (SWB) and workplace burnout, by utilising data collected from 1488 physicians and nurses in 25 Chinese hospitals. SWB, also known as ‘happiness’, refers to people’s cognitive and affective evaluations of their lives, including both

the satisfaction with their lives as a whole, and the domains such as work. In addition, the researchers also examined the moderating effects of employees' organizational based self-esteem (OBSE), as an individual intervention, and physician–nurse relationships (PNR), as an organizational intervention, on the relationship between HPWSs and employee outcomes. Employees' organizational based self-esteem (OBSE) refers to the extent to which individuals perceive themselves as competent, need-satisfying individuals, and can define the way individuals react to their life experiences. In summary, the empirical evidence supported the 'win-win' hypothesis, which assumes that both employers and employees will eventually gain benefits from the adoption of HPWS. In addition, the study highlighted the importance of some psychological theories, such as the social exchange theory and the fulfillment of socio-emotional need perspective, in providing relevant explanations to these findings. Finally, the authors suggested that the relationships between HPWS and positive employee outcomes are not unconditional. Specifically, if organizations implement HPWS through a process of work intensification, HPWS may have negative consequences for employees, reduce their SWB and induce a higher level of burnout. In conclusion, this study suggested that researchers should look beyond the conventional HR outcomes and pay attention to employees' emotions in the workplace.

#### 5.6.4 Quality of Care and Mortality rates

In the healthcare industry, researchers have measured organizational performance using different perspectives. What we should bear in mind is that hospitals are different from most other types of enterprises in that their effectiveness can be measured through their success in treating illness, avoiding deaths or in the case of palliative care units, making death as humane as possible (Townsend et al., 2012). Indeed, hospitals have a unique set of performance measures, for example, staff per bed workloads, number of patients treated, patient mortality

(West et al. 2002; West et al., 2006). In these circumstances successful management of hospital workforces is vital to improve a hospital's performance (Townsend et al., 2012).

Leggat et al. (2011) recognized two perspectives of measuring organizational performance. The first perspective was related to tracking key human resource management outcomes, such as job satisfaction, empowerment, and social identification, as intermediate indicators to aid in the overall understanding of organizational performance. Indeed, there is strong evidence throughout the literature linking these intermediate, largely attitudinal indicators, and the broader indicators of organizational performance. The second perspective concerned more terminal outcome indicators of organizational performance, such as financial performance, which has been used by the majority of studies examining the HRM-performance relationship in the manufacturing sector. However, financial performance is not appropriate as the sole measure for performance outcomes within public health sector organizations (Leggat et al., 1998). Similarly, Townsend et al. (2013) argued that performance in hospitals is typically split into two categories, namely clinical performance (consisting of both patient quality of care and patient safety) and financial performance. Clinical performance is the focus of most health care practitioners and researchers because patients' well-being is a hospital's principal objective. The number of clinical performance measures at this level are vast, while patient quality of care indicators can include patient satisfaction, quality patient care continuity, mortality rates, waiting times and infections (Leggat et al., 2005; Greenfield and Braithwaite 2008).

Taking the preceding discussion into consideration, the quality of care is commonly and widely seen in healthcare studies for measuring clinical performance. Indeed, it has been proposed not only as a relevant performance measure (Leggat et al., 2011), but also as an important performance outcome for the healthcare system (Bonias et al., 2010). Overall, quality of care is defined as the 'degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional



knowledge' (Lohr and Schroeder, 1990, p. 707) and it has been measured as patient mortality, reduction in adverse events (most commonly impact on medication errors), patient satisfaction, and as a specific clinical outcome (Leggat et al., 2010, 2011; Bonias et al., 2010). Among these various measures, patient mortality is widely used, as the data are regularly available in administrative data bases (Bonias et al., 2010). To our knowledge, there are four well-known empirical studies that used patient mortality for measuring quality of patient care.

To begin with, West et al. (2002) investigated possible links between HRM practices and hospital performance, measured by patient mortality data. The aim was not simply to examine the link between HRM practices, quality of care and effectiveness, but to also demonstrate which practices affected these outcomes. For the needs of this study, HR directors from sixty-one acute hospitals in England (Hospital Trusts) completed questionnaires or interviews exploring HR practices and procedures. The interviews probed for information about the extensiveness and sophistication of appraisal for employees, the extent and sophistication of training for employees and the percentage of staff working in teams. Data on patient mortality were also gathered. In summary, HRM practices predicted a significant proportion of the variation in patient mortality in regression analyses, controlling for hospital size, number of doctors per bed and local health needs. Specifically, the sophistication and extensiveness of appraisal and training for hospital employees, and the percentage of staff working in teams in the hospitals were all significantly associated with measures of patient mortality. Overall, it was concluded that by implementing sophisticated and extensive training and appraisal systems, and by encouraging a high percentage of employees to work in teams, hospital performance could be influenced significantly.

Aiken et al. (2002) reported findings from a comprehensive study of 168 hospitals in Pennsylvania. Specifically, they clarified the impact of nurse staffing levels on patient outcomes, as well on employee outcomes (nurses' burnout and job satisfaction). Finally, they

examined the factors that influenced nurse retention. According to the results, higher emotional exhaustion and greater job dissatisfaction in nurses were strongly and significantly associated with patient to-nurse ratios. Specifically, the higher the patient-to-nurse ratios, the bigger the probability of showing high emotional exhaustion and job dissatisfaction. Moreover, nurses experiencing burnout and job dissatisfaction had the tendency to leave their jobs, as opposed to satisfied nurses. In addition, among the surgical patients studied, there was a pronounced effect of nurse staffing on both mortality and mortality following complications. Specifically, the study showed that substantial decreases in mortality rates could result from increasing registered nurse staffing, especially for patients who developed complications. In summary, these findings had important implications for both patient safety and hospital nurse shortage. Indeed, the association of nurse staffing levels with the rescue of patients with life-threatening conditions suggested that nurses contributed importantly to surveillance, early detection, and timely interventions that save lives. The benefits of improved registered nurse staffing also extended to the larger numbers of hospitalized patients who were not at high risk for mortality but nevertheless were vulnerable to a wide range of unfavorable outcomes. Hence, improving nurse staffing levels could reduce alarming turnover rates in hospitals by reducing burnout and job dissatisfaction, major precursors of job resignation. When taken together, the impacts of staffing on patient and nurse outcomes suggested that by investing in registered nurse staffing, hospitals could avert both preventable mortality and low nurse retention in hospital practice.

West et al. (2006) examined the potential contribution of organizational behavior theory and research by investigating the relationship between systems of HRM practices and effectiveness of patient care in hospitals. Specifically, based on a sample of 52 UK hospitals, the authors studied the association between HPWS and standardized patient mortality rates. Overall, the research revealed that greater use of a complementary set of HRM practices (such as HPWS) had a statistically and practically significant relationship with patient mortality.

Hence, the findings suggested that managers and policy makers should focus sharply on improving the functioning of relevant HR management systems in health care organizations as one important means by which to improve patient care.

Finally, Aiken et al. (2008) analyzed the net effects of nurse practice environments on nurse and patient outcomes (such as lower patient mortality) after accounting for nurse staffing and education. Data from 10,184 nurses and 232,342 surgical patients in 168 Pennsylvania hospitals were analyzed. Specifically, outcomes included nurses' job satisfaction, burnout, intent to leave, and reports of quality of care, as well as mortality and failure to rescue patients. In summary, the findings suggested that nurse leaders had at least three major options for improving nurse retention and patient outcomes, namely improving Registered Nurse (RN) staffing, moving to a more educated nurse workforce, and improving the care environment. Indeed, nurses reported more positive job experiences and fewer concerns with care quality, and patients had significantly lower risks of death and failure to rescue in hospitals with better care environments. Overall, it was demonstrated that hospitals with even some of the features of 'magnet' hospitals (investments in staff development, quality management, frontline manager supervisory ability, and good relations with physicians) were associated with better nurse and patient outcomes. Hence, it was concluded that each of the three options for improving outcomes contributed independently to better patient outcomes, while maximizing all three would seem to hold the greatest promise for achieving the best outcomes.

#### 5.6.5 Quality of care and patient satisfaction

Overall, the previous studies examined quality of care based on patient mortality. However, research so far has made little progress in identifying the factors that may mediate or moderate the relationships between specific work conditions and patient mortality. Indeed, among the studies that investigated the relationships between specific work conditions and patient

mortality, there is considerable contradictory evidence. For example, five out of ten studies investigating the relationship between nursing workload and patient mortality reported a positive relationship, three a negative relationship and two no significant relationship. Similarly, six out of nine studies that explored inter-professional relationships and patient mortality found positive associations, and three no significant association (Kazanjian, et al., 2005). In turn, Bartram et al. (2007) noted that any attempts to link people management practices to patient mortality in acute hospitals were regarded as a major problem in the healthcare sector, mainly because it was difficult to prove any direct causal links between specific HR practices and patient outcomes (such as patient mortality) due to the presence of so many confounding variables. Overall, the general consensus suggests that ‘patient mortality’ is an unreliable measure of performance (e.g., Gorton et al., 2005; Bartram et al., 2007; Penfold et al., 2008).

In contrast to ‘patient mortality’, patient satisfaction has been used as an additional measure of clinical patient outcomes (Kane et al., 1997) and therefore a measure of quality of care. Nonetheless, a new question emerged regarding the most efficient way of measuring quality of patient care, whether from the perceptions of clinicians, patients, or with clinical outcomes. Donabedian (1980) distinguished two aspects of quality of care, namely technical, and interpersonal. The former refers to the appropriate application of professional knowledge and skills to promote healthcare, while the latter involves both the relationships between patients and healthcare professionals as well as the contextual aspects of care. Based on the preceding distinction, research indicates that patients are able to judge the interpersonal aspects, but do not feel qualified to critique the technical quality, which coupled with the evidence that process measures of quality are most effective, suggests the need for clinician measures of quality of care (Bartram et al., 2014, p. 7). Indeed, clinician perceptions of patient care are a widely used and accepted indicator of quality of patient care within the health-care industry, whereas it has

also been argued that clinical quality measures and patient experiences are correlated at the level of health professional (Sequist et al., 2008). Thus, various researchers (Bonias et al., 2010; Leggat et al., 2010, 2011) have used health professionals' self-report measure of clinical care. In summary, and following Bartram et al. (2014, p. 14) argument, the focus on clinician-report quality of patient care data is justified for two reasons. First of all, the organizational level data on quality of patient care and patient satisfaction may be methodologically flawed, whereas, secondly, findings from numerous studies demonstrate that self-report clinician measures are widely used and accepted as an indicator of quality of patient care within the health-care industry.

To our knowledge, despite its importance, there is a very limited number of empirical studies examining the relationship between HRM and quality of patient care. To begin with, Leggat et al. (2010), based on a sample of 201 nurses' responses in a large regional Australian health service, investigated the interactive effects of psychological empowerment and job satisfaction on the relationship between HPWS and nurses' perceptions of the quality of patient care they provide. Specifically, the authors examined the mediating effects of psychological empowerment on the relationship between HPWS and perceptions of quality of patients and the moderating role of job satisfaction. Psychological empowerment refers to the reactions of the employees to the conditions of the work context. Overall, employees who perceive higher levels of psychological empowerment from their work are more motivated to perform within their role. According to the results, psychological empowerment fully mediated the relationship between HPWS and perceptions of quality of patient care. In turn, job satisfaction moderated the relationship between HPWS and perceptions of quality of patient care. In other words, the relationship between HPWS and perceptions of the quality of patient care was dependent on nurses' job satisfaction. Specifically, HPWS had a significant positive relationship with

perceptions of the quality of patient care only among nurses with higher levels of job satisfaction.

Bonias et al. (2010) investigated the mediation effects of the four components of psychological empowerment (meaning, competence, autonomy, and impact) on the relationship between HPWS and perceptions of patient care quality among hospital employees. To test this relationship, 541 hospital employees were surveyed across all hierarchical levels and functional groups within a regional Australian health service, in 2008. According to the results, HPWS did not predict perceptions of the quality of patient care. In contrast, HPWS was positively associated with empowerment, which in turn was related to perceptions of higher quality care delivery. Hence, it was demonstrated that psychological empowerment fully mediated the relationship between HPWS and the perception of the quality of patient care. In detail, three of the four individual components of psychological empowerment – autonomy, competence and meaning – fully mediated the relationship between HPWS and the perception of quality of care, while the fourth (impact) was non-significant. Overall, this study highlighted the need to recognize that the quality of patient care is influenced not only by clinicians, but also by allowing all hospital employees to exercise concern through their work. Hence, it was argued that healthcare managers need to focus on ensuring HRM strategy, policy and processes that support the implementation of HPWS at the unit level.

Finally, Bartram et al. (2014) examined the mediating effects of social identification on the relationship between HPWS and psychological empowerment, as well as the direct relationship between psychological empowerment and clinician perceptions of quality of patient care. Social identity theory suggests that people wish to belong to particular groups to raise their self esteem and that their perception of belonging forms the basis of individual social identity. Specifically, this study suggested that HPWS focusing on the team level on building a collective social identity among group members will enhance members' psychological

empowerment which will ultimately lead to higher clinician ratings of patient care. For this study, a sample of 254 health professionals was used from a large regional hospital in Australia. Overall, results demonstrated, first, a strong effect of HPWS on social identification. Second, social identification mediated the relationship between HPWS and psychological empowerment and, third, psychological empowerment had a strong effect on clinician perceptions of quality of patient care. In summary, this study demonstrated the potential fruitfulness of approaching HPWS research from a social identity perspective, particularly in team based work structures with clearly articulated professional identities. Overall, the results confirmed the notion that without the presence of psychological empowerment, HPWS may have limited impact on how clinicians' view their quality of patient care delivery.

#### 5.6.6 HRM and managerial levels

As it has been suggested thus far, evidence shows that hospitals throughout the world that embrace strategic HR practices have the ability to demonstrate improved organizational outcomes. On the other hand, recent evidence highlighted one significant issue that might emerge, that of agreement and understanding on the role of HR among managers, even at the highest levels. For instance, as the Bartram et al. (2007) study showed, hospital CEOs and HR directors in Australian healthcare claimed that their organizations linked HR strategy to organizational strategy. Unfortunately, these claims were not supported by other senior managers within these organizations who perceived HR much more narrowly as the recruitment and training of professionals. Hence, researchers underscored the significant implications that these differences of perceptions –regarding HR - could have, throughout the management hierarchy (see Stanton et al., 2010).

Indeed, the extensive literature on leadership and performance in health care has predominantly been confined to the leadership role of top managers, although researchers have

criticized this as being at a too high level to have an impact on the attitudes and behaviors of employees working at the operational level. A much smaller but growing body of research has specifically explored the role of middle managers in health care, showing them to be key strategic actors and agents of change (e.g., Hutchinson and Purcell, 2010, p. 360), whereas only few studies considered the role of lower level front-line managers, such as ward managers, despite the fact that their role has gained significant importance. Overall, evidence shows that the role of middle and line managers in the operationalization of HRM goals and plans is increasingly important (e.g., Purcell and Hutchinson, 2007) particularly as more HRM responsibilities are devolved to the operational levels (Stanton et al., 2010, p. 569). In delivering HRM, these managers are critically important in maintaining effective teamwork, performance appraisal and training to front-line staff. In other words, it is these managers who have the potential to significantly influence employee attitudes and behaviors, and ultimately organizational performance in health-care settings, due to their proximity and relatively frequent interactions with employees (Hutchinson and Purcell, 2010, p. 358). Indeed, these managers have a crucial role to play in the development of employee commitment through their leadership skills, and their ability to communicate, motivate and manage change (Stanton et al., 2010, p. 570).

However, and despite the extensive research on the integration between HRM and organizational strategy, as well as on the increasingly key role of operational managers in HR practice, there is still a lack of empirical research on the roles, relationships and interactions within and between the different managerial levels in operationalizing effective HR strategy (Stanton et al., 2010, p. 570). Integration and close interactions among HRM managers, operational managers, senior managers and the CEO foster the exchange of tacit knowledge, which enables the formulation and implementation of HRM infrastructure that ensures the achievement of the strategic goals of the organization and the virtuous employee behaviors



(Stanton et al., 2010, p. 571). The preceding discussion shows the way towards a ‘strong’ HRM system (Bowen and Ostroff, 2004). In a ‘strong’ HRM system, HRM practices create an unambiguous social structure that integrates the HRM content and process to create messages for all organizational participants regarding virtuous organizational goals and practices, and subsequent individual goals and behaviours. Hence, if the HRM system is perceived as high in ‘distinctiveness’, ‘consistency’ and ‘consensus’ it will create a ‘strong situation’ and will transmit messages that promote consistent management and employee behavior. Overall, this process enables HRM messages from the top of the organization to be better translated throughout the management hierarchy (Stanton et al., 2010, p. 571).

In summary, and taking into consideration the critical role that HRM managers at all levels of an organization have to play, it is surprising that this stratum of management has been generally neglected by academics and practitioners. Indeed, little is known about how their roles are defined and experienced, and what factors may influence their ability to carry out their HRM roles effectively. In the next section, we cite some of the most important empirical studies to our knowledge, which are mainly related to the relationship between HPWS and the role of managers specifically.

#### 5.6.6.1 Empirical studies on HRM and managerial levels

To begin with, Bartram et al. (2007) used data collected from 132 Victorian (Australia) public healthcare providers - including metropolitan and regional hospital networks, rural hospitals and community health centers – and investigated the adoption of strategic HRM from the reported experiences of chief executive officers, HR directors and other senior managers. In addition, they investigated the links between HRM and performance in healthcare settings and the extent to which healthcare organizations were monitoring HRM. In summary, the evidence suggested that managers in healthcare organizations reported different perceptions of strategic HRM and a limited focus on collection and linking of HR performance data with organizational

performance management processes. Moreover, significant differences were found in perceptions of strategic HRM and HR priorities between chief executive officers, HR directors and other senior managers in the large organizations. This finding suggested that the strategic human resource management paradigm was 'lost in translation', particularly in large organizations, and consequently opportunities to understand and develop the link between people management practices and improved organizational outcomes could have been missed. Finally, there was some support for the relationship between strategic HRM and improved organizational outcomes.

Hutchinson and Purcell (2010), drawing on case study research in seven UK Nation Health Service (NHS) Trusts, considered the role and management of ward managers and paramedic supervisors, focusing on their HRM responsibilities. Specifically, the authors considered the content and practice of these junior managers' role, their work experiences, as well as the factors that influenced their ability to deliver effective HRM. Overall, in the NHS, these front-line managers are critical to the delivery of effective HRM and thereby strongly influence organizational performance and service delivery. In summary, the findings revealed that the roles of these managers were enhanced and extended to include an extensive portfolio of HR duties. However, HRM was afforded a low priority as the more clinical aspects of the role took precedence, since senior managers believed that clinical work should and did dominate. Overall, 'management' work, including people management, was covered outside normal working hours or simply did not get done. As a result, the multiplicity of roles these managers were required to perform had magnified issues of role conflict and ambiguity, heavy workloads and stress.

Stanton et al. (2010) reported the findings of a case study research that explored the strength of the HR system in three Australian public hospitals from the perspective of senior, middle and line managers, and HR practitioners. Specifically, the study explored how HRM was

understood, interpreted, and operationalized across the managerial hierarchy. The three case study hospitals were operating their HRM systems under largely similar conditions (e.g., within the same government policy directions, the same industrial relations environment and similar geographic regions), were each responsible to a board of directors, and had full responsibility for the management of their staff within a centralized industrial relations framework. The findings suggested that the role of the CEO was crucial in providing HR legitimacy, leadership and resources that created a distinctive HR system, as well as in nurturing within group agreement and consensus among the senior executive team on the role of HR. In turn, senior managers needed to translate consistent HR messages throughout the management hierarchy and provide lower level managers with the formal and informal direction, support and empowerment to operationalize HR strategy. In summary, the authors argued that the key to creating a strong HRM system is to encourage all levels of the managerial hierarchy to 'sing the same song'. This requires high level leadership based on within group agreement that uses its authority to transmit relevant, consistent and valid HRM messages and information across the organization and between groups through formal and informal communication channels that are efficient and effective. Managers at all levels of the organization need to be provided with the relevant knowledge and skills that can enhance their role as people managers and in turn transmit important knowledge from the front line back into the organization through ownership of key HR performance indicators.

Young et al. (2010) explored the attitudes of managers and employees to HPWS in a medium sized rural Australian hospital. The study consisted of two stages. Stage one involved a qualitative investigation consisting of interviews and focus group sessions with senior, middle and line management at the hospital, concerning the implementation of strategic HRM / HPWS. Specifically, the purpose was to examine how strategic HRM was understood, interpreted and operationalized across the managerial hierarchy. Stage two consisted of a

questionnaire administered to all hospital employees in investigating their views and the perceived effects of SHRM / HPWS. Specifically, this stage examined the mediation effects of social identification on the relationship between HPWS, affective commitment and job satisfaction. The social identity theory suggests that people wish to belong to a group that they consider is distinctive from other groups in order to increase their self-esteem. The results of Stage 1 demonstrated that in the specific organization, according to the managers, strategy and HRM strategy were aligned in a way that appeared to be relevant, meaningful and accessible. Moreover, the HRM system was seen to be legitimate with strong within-group agreement at the executive level. In addition, there appeared to be consensus across the management levels on the role and functions of HR and even on the limitations and difficulties. Overall consistency, consensus and trust appeared to be successful in this organization. At stage two, the results demonstrated that HPWS were positively associated with affective commitment, job satisfaction and social identification of employees with their colleagues. Moreover, the level of social identification with the work group mediated the relationship between HPWS in the organization and employees' affective commitment and job satisfaction. In summary, the combination of qualitative and quantitative methods identified some significant findings. First, the key to creating a strong HRM system is high-level leadership that uses its authority to transmit relevant, consistent and valid HRM messages across the organization. Second, it was not enough to focus on optimal configurations and bundles of HR practices. Indeed, this research highlighted the importance of the organization in understanding the key role of the team leader / manager and in providing recognition, reward, support and training to enable this job to be done well. Third, effectively utilizing HPWS and harnessing social identification at the team level among like-minded professionals may have positive implications for employees and organizations. Finally, the study demonstrated the value of identifying key HR performance indicators, embedding their collection at all managerial levels and regular

reporting of this data in creating a managerial mindset so that HR can contribute to organizational effectiveness.

Finally, Townsend et al. (2012) considered the extent to which hospitals had developed their skilled clinicians to perform the administrative and manager role of the ward manager. For the needs of their study, the authors analyzed an acute hospital, where the executive team was aiming to adopt a form of HPWS. In summary, this article explored a number of areas of the ‘black box’ in the causal link: the recruitment, then the training and development (T&D) and the organizational support of ward managers who were already in the role. The data showed that ward managers almost without exception found themselves in such a line manager role accidentally and were unprepared for what was required of them. Although the hospital was regarded as an industry leader, it was still developing and implementing the T&D programs to provide to ward managers all the skills required for managing a hospital ward. Consequently, like organizations throughout the industry, the hospital under study had (at the time of the research) failed to harness the benefits of ward managers as a pivotal part of the HR system. Overall, the authors concluded that HPWS is not simple to develop, whereas the study’s evidence suggested that the skills of the line manager are critical in developing successful HPWS. Hence, senior managers should first invest in developing the careers of the people before appointing them as ward managers. For instance, by selecting and appropriately developing the skills of nurses before they become ward managers, hospitals would be better able to capitalize more significantly on the potential benefits of HPWS.

### 5.6.7 Models Developed

Overall, the HPWS literature review on the healthcare sector showed mixed findings regarding the HPWS contribution to employers, employee outcomes, and quality of care, which is widely used as a performance indicator in the healthcare context. Thus, some researchers chose to

develop a conceptual model in an effort to address some of these issues. One of the most important conceptual models developed was that of Garman et al., (2011), which was later used by McAlearney et al. (2011), confirming its face validity. Song et al. (2012) used it as their framework for exploring the business case of HPWP investment in health care organizations, while Chuang et al. (2011) used it as a basis for the development of their own conceptual framework, in identifying different configurations or ‘bundles’ of HPWPs associated with frontline health care workers’ outcomes. Finally, Townsend et al. (2013) developed and tested a model showing how HRM processes influence hospitals’ clinical performance in the context of processes emerging from three other hospital sub-systems (strategic and operations management, information management, and health and safety). Next, we present these studies in more depth.

Garman et al. (2011) developed a conceptual model on the basis of prior research from health care and other industries that could be used to inform important contextual considerations within health care. The resulting conceptual model identified four practice bundles (engaging staff, aligning leaders, acquiring and developing talent, and empowering the frontline), comprising 14 management practices as well as nine factors influencing adoption and perceived sustainability of these practices. Overall, the review suggested that HPWPs can influence quality, safety, and efficiency outcomes in health care settings and that the impact of these effects could be substantial. The practices appeared to have their effects through multiple mechanisms, including the composition of staff employed by the organization (i.e., who is attracted to work there, who is selected, and who remains) as well as their ongoing skill and motivation levels. From a research perspective, the level and sophistication of HPWP use within an organization could help to explain differences in the relative success of organizational interventions to improve quality and safety above and beyond the more general factors of leadership support and organizational climate. Hence, as the authors noted, studies

of the implementation of HPWPs and their effects could be a useful direction for future research because the findings could have direct practical implications for the way that finite management resources should be deployed most optimally in support of quality and efficiency goals.

McAlearney et al. (2011) in their study tried to improve the overall understanding about the use of HPWPs in health care organizations and to learn about their contribution to quality of care and patient safety improvements. Guided by the model previously developed by Garman et al. (2011), a series of interviews were conducted with key informants from five U.S. health care organizations that had been identified based on their exemplary use of HPWPs. The main goal was to determine the extent to which practices in each of the four HPWP subsystems of the model in the Garman et al. (2011) study (staff engagement, staff acquisition / development, frontline empowerment, leadership alignment / development) were present in the organization studied. In summary, the findings showed that the four HPWP subsystems were present in all five exemplar organizations, and as a result, they confirmed the face validity of the developed model. Informants in all case study organizations agreed that HPWPs were critical drivers of organizational success. Particularly interesting was the emphasis placed on the staff engagement subsystem across all five organizations, with nearly all respondents being able to describe how their organizations paid particular attention to the importance of systematic communication about the alignment of management practices to mission, vision, goals, and objectives. Overall, the findings supported the view that methodical adoption of a system of HPWPs may indeed be linked to both employee outcomes (e.g., decreased turnover and higher satisfaction/engagement) and organization-level outcomes (e.g., lower agency and turnover costs).

Chuang et al. (2011) based on the conceptual framework developed by Garman et al. (2011), focused on identifying different configurations or 'bundles' of high-performance work

practices (HPWP) associated with frontline health care workers' outcomes, namely job satisfaction and perceived quality of care. Frontline health care workers (FLWs) ranged from nursing assistants and patient care technicians to mental health counselors and respiratory therapy technicians. For this study, 661 FLWs in 13 large health care employers were examined. In summary, the findings identified 'supervisor support' and 'team-based' work practices as necessary for high job satisfaction and high quality of care, but not sufficient to achieve these outcomes unless implemented in tandem with other HPWP. Although several configurations of HPWP were associated with either high job satisfaction or high quality of care, only one configuration of HPWP was sufficient for both, which included the combination of supervisor support, performance-based incentives, team-based work, and flexible work. Overall, this study provided confirmation to the hypothesis that a 'bundled' approach to HPWPs incorporating practices from multiple HPWP subsystems might be more effective than focusing on practices from only one HPWP subsystem. For this study, the specific subsystem included practices from both the 'staff motivation' and 'frontline empowerment subsystems' (see the model of Garman et al., 2011). In conclusion, it was suggested that HPWPs that integrate FLWs in health care teams and provide FLWs with opportunities for participative decision making can positively influence job satisfaction and perceived quality of care, but only when implemented as bundles of complementary policies and practices.

Song et al. (2012) in their study focused on enhancing the understanding about organizations' perspectives of the business case for HPWP investment, including reasons for and approaches to evaluating that investment. Following the model conceptualized by Garman et al. (2011), and the previous studies of McAlearney et al. (2011) and Etchegaray et al. (2011), the authors noted that the major limitation of these reviews was the near-universal absence of any discussion of implementation costs in particular, and of the business case more broadly. However, establishing a business case is a critical step in establishing organizational support



for investment in new programs or initiatives. For the needs of their study, the authors used semi-structured interviews with 67 key informants across five US health care organizations. In summary, the organizations in this study did not appear to have explicit financial return expectations for investments in HPWPs. Instead, the HPWP investment was viewed as an important factor contributing to the successful execution of the organization's strategic priorities - particularly to those related to advancing the organization's commitment to safety and quality of care - as well as a means for competitive differentiation in the market. In contrast to the academic literature suggesting that the establishment of a business case is critical to support the organizations' initial and ongoing investments in quality-related programs, the findings suggested that the establishment of a formal business case may not be necessary to support initial investment in HPWPs, mainly for three reasons. First, the costs associated with HPWP investments were not viewed as additional or incremental costs to the organizations examined. Second, the financial data required to complete a formal business case evaluation of HPWPs was limited or simply did not exist. Finally, instead of using financial metrics to directly evaluate HPWP investment, these organizations preferred to rely on a broad spectrum of employee and organization level performance indicators, such as reduced numbers of safety events, lower turnover rates, patient satisfaction, and employee engagement to assume HPWP impact.

Finally, Townsend et al. (2013) developed and tested a model showing 'how' HRM processes influence hospitals' clinical performance (continuity of quality patient care) in the context of processes emerging from three other hospital sub-systems (strategic and operations management, information management, and health and safety). For the needs of this study, the authors utilizing rigorous multi-rated, industry-based hospital accreditation data relating to 465 Australian hospitals. In summary, the findings showed that in the context of management, information management, and health and safety sub-system processes, the effective

functioning of HRM processes significantly influenced the continuity of quality patient care. There was also further evidence that the effectiveness of HRM processes significantly moderated the relationships between: (1) strategic and operations management processes; and (2) health and safety processes and the continuity of quality patient care. On the basis of these findings, the authors argued that the simultaneous and interdependent influence of multiple processes should be considered when examining the influence of the effective functioning of HRM processes on organizational-level performance in hospitals. In conclusion, the data made clear that decision-makers within organizations who are focused on delivering high organizational performance must ensure that their management systems and processes are appropriate; that they deliver adequate resources to ensure HRM performance is high; information management is developed and integrated appropriately; and that their health and safety processes are effectively designed and implemented to ensure low incident rates. Thus, policies and processes must be developed and implemented in each of the critical sub-systems to ensure that the impact on firm performance is accumulative.

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## **PART VI**

### HPWS Research in the Greek Service and Manufacturing Contexts

## **6. HPWS research in the Greek service context**

### **6.1 Introduction**

To date, there has been an impressive body of empirical studies linking HPWS with various firm-level performance outcomes (e.g., Combs et al., 2006), such as increased productivity, and reduced turnover (e.g., Arthur, 1992; Huselid, 1995) in the US manufacturing sector, while other empirical studies have demonstrated similar results focusing on different industries and regions (e.g., Datta et al., 2005; Messersmith and Guthrie, 2010), on Small-Medium Enterprises (e.g., Klaas et al., 2012; Torre and Solari, 2012) or on the broader service sector, including healthcare.

Specifically, for the healthcare sector, there is mounting evidence relating aspects of HPWS to improved patient outcomes in numerous healthcare studies. For instance, HPWS has been associated with cost efficiency through enhancing employee satisfaction and service quality (Scotti et al., 2007), and with positive perceptions of quality of patient care and delivery of healthcare services (Bonias et al., 2010; Leggat et al., 2010, 2011; Bartram et al., 2014). Moreover, it has been reported that the introduction of HPWS is positively related to employee experiences of work (Harley et al., 2007; Young et al., 2010), and benefits to employees' well-being (Fan et al., 2014). In addition, some researchers have suggested a negative association of HPWS with employee burnout (Bartram et al., 2012; Ang et al., 2013; Zhang et al., 2013; Fan et al., 2014) and, consequently, with intention to leave (Bartram et al., 2012; Ang et al., 2013).

Taking a look at the past two years, HPWS research still lies at the forefront of the SHRM literature (e.g., Chang, 2015; Wu et al., 2015; Cooke et al., 2016; Kirloy et al., 2016; Lee et al., 2015; Topcic et al., 2016; van de Voorde et al., 2016; Zhang et al., 2016). On the other hand, however, and despite the positive effects with which HPWS has been attributed, there is still a

gap in the literature with regard to the mechanism through which HRM practices influence performance (Takeuchi et al., 2007, p. 1069; Zhang and Morris, 2014, p. 69). In particular, researchers suggest that there is a need to understand not only the ‘what’ and the ‘why’ of the impact of HRM, but also the ‘how’ (Purcell et al., 2009), which is known as ‘the black box’ problem (Kinnie et al., 2005; Becker and Huselid, 2006; Sels et al., 2006; Messersmith et al., 2011). The latter, is considered as one of the key issues requiring further attention in the field of HRM. Thus, in an effort to unlock the ‘black-box’ phenomenon, most recent research has shifted to the positive contribution of HPWS towards employee attitudes and behaviors, and well-being (e.g., Macky and Boxall, 2007; Takeuchi et al., 2009; Jiang et al., 2012; Ang et al., 2013; Zhang et al., 2013). As has been suggested, HR practices are expected to influence first HR outcomes, such as employee skills and motivation. In turn, these HR outcomes may mediate the influence of HR practices on productivity, quality, and other operational outcomes, which further affect financial outcomes (Jiang et al., 2012, p. 1265). However, and despite these efforts, researchers still call for more theory and research on the intervening mechanisms that may contribute to explaining the impact of HRM practices on organizational outcomes (e.g. Innocenti et al., 2011, p. 304). Specifically, recent studies call for more employee-centered research, in order to restore the effects of HRM on employee outcomes to a central position of HPWS studies (e.g., Ang et al., 2013; Van De Voorde and Beijer, 2015; Zhang et al., 2013), and highlight the need to focus on the processes that help to explain how HPWS influences health-related outcomes (van de Voorde and Beijer, 2015, p. 62).

Overall, several dominant perspectives have been used by researchers to explain the ‘black-box’ issue, such as the human capital path, and the behavior motivation approach (see Jiang et al., 2012, 2013; Heffernan and Dundon, 2016; Raineri, 2016; Shin et al., 2016). The human capital approach, supported by the Resource Based View of the firm (RBV; Barney, 1991) theory, proposes that HPWS focuses on the potential contributions of employees’

competencies, in other words their knowledge, skills, and abilities, all of which help employees in achieving higher levels of performance (see Jiang et al., 2012; Raineri, 2016). In turn, the RBV proposes that organizations can obtain a competitive advantage from resources which can be valuable, rare, inimitable, and non-substitutable (Barney, 1991). On the other hand, the behavior motivation approach (Jackson et al., 1989) uses a psychology framework and suggests that HPWS affects organizational outcomes by influencing employees' attitudes and role behaviors (such as affective commitment, and job satisfaction), which in turn motivate employees to exert efforts to perform (Jiang et al., 2012; Raineri, 2016). With regard to the motivational path, research has also emphasized the antecedent processes that contribute to the development of these employee attitudes that mirror motivation, such as the social exchange theory (Blau, 1964) and the norm of reciprocity (Gouldner, 1960), the social identity theory (Taifel and Turner, 1986), the psychological empowerment perspective (Spreitzer, 1995), the trust theory (Mayer et al., 1995; Rousseau et al., 1998), and high-involvement processes in general (see Raineri, 2016). Overall, Raineri (2016, p. 7) demonstrates a 'sequence of events' in explaining the 'black-box', where the motivational path initiates at the implementation of HPWS, which facilitates processes such as reciprocal social exchanges and enhancement of employees' social identity. As a result, these processes develop employees' attitudes that mirror motivation (such as affective commitment and job satisfaction), which finally leads to performance.

Taking the preceding discussion into consideration, the present research responds to the calls for restoring the effects of HRM on employee outcomes to a central position of HPWS studies. Hence, by following the 'behavior motivation' approach, it takes a look inside the 'black-box' in an effort to enlighten the actual mechanisms linking HRM to employee outcomes. Indeed, although employee outcomes have been identified as a crucial mediating variable in unlocking the 'black-box', research emphasizing the antecedent processes through

which a system of HRM practices (such as HPWS) influences employee attitudes and role behaviors is still scarce (Jiang et al., 2012).

Overall, the present research consists of two different projects. The first project focuses on the Greek healthcare sector. Specifically, it adopts several theoretical frameworks and investigates the process through which HPWS influences employee outcomes. In more depth, this project includes three empirical studies.

- The first study, entitled ‘The effects of high-performance work systems on hospital employees' work-related well-being: Evidence from Greece’ introduces the social and economic exchange theories, and examines the HPWS effects on employees' work-related well-being, measured by their emotional exhaustion, work engagement and consequently their job satisfaction.
- The second study, entitled ‘Modeling patient care quality: an empirical high-performance work system approach’ introduces the social identity theory and the psychological empowerment perspective. Specifically, this study investigates the mediating effects of social identification on the relationship between HPWS and psychological empowerment, as well as the mediating role of psychological empowerment in the HPWS - quality of patient care relationship.
- Finally, the third study, entitled ‘Linking innovative human resource practices, employee attitudes and intention to leave in healthcare services’ examines the effects of HPWS on employees’ work engagement and job satisfaction, as well as the mediating effect of these variables on employees’ affective commitment and intention of leaving their hospital.

The second project, adopts the ‘trust’ theory and focuses on the Greek banking sector. In detail, this project consists of one study that examines the effects of employees’ perceptions of HPWS

on their trust towards their managers, as well as on service quality, through the mediating role of employee outcomes (measured by job satisfaction and affective commitment). In addition, trust is also tested for its role as a potential mediator in the relationship between HPWS and employee outcomes.



# **Project #1**

## **Implementation of HPWS in the Greek healthcare context**

## 6.2.1 The Greek context

Despite the vast amount of empirical studies supporting the overall positive effects of HPWS, one significant issue prohibiting generalizations of these findings concerns the existing differences between different contexts and countries. As noted by Brewster et al. (2008), employment systems and structures and, hence, HRM, vary from country to country. Indeed, the context in which organizations operate may limit or enhance the HPWS usefulness due to differences in cultural and institutional factors that shape employment relationships and are considered country contingent. Therefore, practices which seem to be appropriate in one culture may be less appropriate in another (Den Hartog and Verburg, 2004; Boxall and Macky, 2009). Despite the growing interest in comparative HRM which seeks to better understand contextual effects and their implications for theory and practice, one significant regional omission concerns the area of south-eastern Europe, also referred to as the Balkans (Szamosi et al., 2010, p. 2521).

Greece is a peripheral country in the European Union that both influences, and is influenced by, the Balkan and the Black Sea countries, whose cultural and economic context is rather different from the Western European countries (Katou and Budhwar, 2012). In summary, the Greek economy is characterized by a striking dualism. On the one hand there is a class of professionally managed firms, including the subsidiaries of multinationals, and on the other there are numerous Small and Medium Enterprises (SMEs), mostly family-owned that have been traditionally managed by their founders or by small proprietors (Makridakis et al., 1997). SMEs account for 99% of industrial business activities, and although they demonstrate low productivity they tend to maintain an increased employment rate (Psychogios and Wood, 2010, p. 2626). Taking into account this depicted situation, it can be argued that the practice of HRM in Greece is also dualistic. Indeed, larger employers are more inclined to follow the law, and be unionized, which makes the practice of HRM more consistent and regulated. In contrast, the

HRM policies in SMEs are likely to be unprocedural, flexible, highly personal, but also arbitrary (Mihail, 2004), and with little in the way of formalized mechanisms for involvement and participation, which is often matched by poor terms of employment and working conditions (Psychogios and Wood, 2010, pp. 2627-2628). Overall, what affects both large firms and SMEs are structural weaknesses in the training system that influences the level and quality of employees' skills. Specifically for SMEs, they are characterized by relatively weak job security, while the lack of resources forces them to rely mainly on on-the-job training, rather on external courses (Psychogios and Wood, 2010, p. 2627).

Taking the preceding discussion into consideration, the first goal of the current project is to investigate the practice of HRM in the broader area of south-eastern Europe (Szamosi et al., 2010, p. 2521), and specifically in the Greek context, characterized by unique labor relations and institutional conditions. In addition, and given that the theoretical underpinning of the present study is derived from theories of advanced economies (e.g., USA / UK; Takeuchi et al., 2007, p. 1080), it would be interesting to examine whether similar findings will be reported in a non-US/UK context (i.e., Greece). To our knowledge, there is a poverty of HPWS studies focusing specifically on the Greek context (e.g., Vlachos, 2008; Katou et al., 2014).

Furthermore, the majority of strategic HRM research has been conducted in manufacturing environments neglecting the considerable presence of other sectors (Katou et al., 2014, p. 529), and especially the service sector. One major drawback of this issue is the fact that manufacturing studies may not be generalized to service settings due to special characteristics of the latter, such as the simultaneous production and consumption of products, the intangibility of service processes and outcomes, as well as the customer involvement in service production (Liao et al., 2009, p. 373). In addition, and despite the majority of studies in the manufacturing sector, the service sector accounts for 60% of world Gross Domestic Product (GDP) and dominates economies in most nations (Liao et al., 2009, p. 371). Specifically for the Greek

case, the service industry is the most developed sector. Since 1961 it has accounted for more than half of GDP (Psychologios and Wood, 2010, p. 2621), and is currently around 80%. Hence, the further goal of the current study is to extend the SHRM research into the Greek service sector, and especially in regard to healthcare for several reasons.

To begin with, the most rapid expansion in Greece up until 2013 has occurred among public administration, education, health and social work activities reaching 21.6% in 2013 (Eurostat, 2013). On the other hand, the Greek healthcare is already a saturated labor sector. The salaries and benefits are disproportional when compared to the actual amount of work, while doctors and allied health professionals are constantly seeking employment in other countries around the world, such as Germany, the UK, and Sweden. Similar to this line of thinking, there are various significant issues that the healthcare sector is facing globally. For instance, there are significant challenges regarding the training, development and retention of nurses, while there is also evidence of significant labor turnover (Ang et al., 2013, p. 3086). Especially important, the burnout syndrome is commonly associated with workers in ‘caring’ professions (Maslach, 1982) leading to emotional exhaustion, and increased intention to leave (Laschinger et al., 2003; Bartram et al., 2012; Ang et al., 2013). Finally, it could be argued that the effective management of healthcare workers is rather complex, mainly due to the nature of the work (Ang et al., 2013, p. 3086).

Hence, and taking into consideration the positive reported effects of HPWS on employees’ job attitudes and outcomes (e.g., Macky and Boxall, 2007; Takeuchi et al., 2009; Ang et al., 2013; Bartram et al., 2014; Fan et al., 2014; Zhang and Morris, 2014), it would be interesting to extend the debate on the role of HPWS in affecting employees’ work-related outcomes in the Greek healthcare context.

## 6.2.2 The Greek Healthcare System

The Greek Healthcare system can be described as a unique and challenging case. Overall, healthcare in Greece can be provided by either public or private hospitals. Although many issues emerge largely attributed to the structure of the health care system but even more to its problematic administration, the most significant ones can be located among public hospitals.

Many of the public hospitals are highly bureaucratic, showing no real concern for service quality and ignoring cost-efficiency, and organizational effectiveness. In addition, central authorities tend to intervene, leaving limited space for managerial decisions, not to mention the interference of political parties, and the political discrimination even in selecting hospital managers and members of governing boards (Bellou, 2008, pp. 497–498).

Although there is a bleak picture regarding public hospitals, there are exceptions. Among them, there are some exemplary public hospitals, which share similar characteristics with modern private ones. In these leading private and public hospitals, management is free to hire employees according to their own criteria, which typically revolve around profit-making for the organization. The main sources of revenue are payments from private insurance and out-of-pocket payments by the patients. Finally, health care professionals are recruited on the basis of their commitment to increasing hospital revenue and can be motivated accordingly to adhere to this goal by appropriate HRM policies which are set by hospital management (Kontodimopoulos et al., 2009).

To our knowledge, there are no empirical studies examining the HPWS (or HRM practices) effects on employees' well-being and quality of care in the Greek healthcare sector. Of the few existing empirical studies, however, the majority focus on the motivational factors among health-care professionals (Kontodimopoulos et al., 2009; Lambrou et al., 2010; Peleologou et al., 2006). Hence, following the suggestion of Paleologou et al. (2006), it is important to

understand what exactly satisfies Greek health professionals in their workplace and motivates them to improve performance.

### 6.2.3 Sample and procedure

For the purposes of our research project, we developed both a handwritten and an on-line questionnaire, following a convenience sampling process. We surveyed clinicians' (doctors, and nurses) responses in seven (five private and two public) regional hospitals, located in Athens and Thessaloniki, Greece. All private hospitals are well-known and reputed for their high health-care quality. Specifically for public hospitals, the first one is newly established, the second one is in part privately funded, and both are recognized as leaders in the health care industry. The questionnaire was delivered by hand in the two public hospitals, while for private ones we chose the on-line method by sending it to the clinicians' personal e-mail addresses, obtained by hospitals.

Overall, the survey was distributed to 741 employees in the seven hospitals, in spring 2014. Cases that had missing data for more than one item for any of the subscales were deleted. For those cases that had missing data for an item in a subscale, the respondent's average over the other items in the subscale was used as the response to the missing item because each subscale is assumed to consist of reflective indicators. We received 297 usable responses, a response rate of 40%. Our sample consists of 178 doctors and 119 nurses. About 71% of the doctors were male while 83% of the nurses were female. The average age of respondents was 44. In addition, 55% of employees held a bachelor's degree, while 41% held postgraduate qualifications (e.g. postgraduate diploma, master's degree, PhD). Finally, 71% of the respondents were working full-time, 18% part-time, and an additional 11% were working under a short-term employment contract.

## Empirical Study #1

### **The effects of high-performance work systems on hospital employees' work-related well-being: Evidence from Greece**

This empirical study has been published in the European Management Journal.

Mihail, D.M. & Kloutsiniotis, P.V. (2016a). The effects of high-performance work systems on hospital employees' work-related well-being: Evidence from Greece. *European Management Journal*, 34, 4, 424-438.

#### 6.2.4.1 Introduction

By following the Zhang et al. (2013) research, and based on the social exchange theory, this study examines whether the nature of the employer and employee relationship (social or economic exchange) can moderate employees' work-related well-being, burnout and consequently their job satisfaction. To our knowledge, there are only a few studies examining the HPWS effects on employees' outcomes in the healthcare sector, such as well-being (Weinberg et al., 2012), and burnout (Bartram et al., 2012; Ang et al., 2013; Zhang et al., 2013; Fan et al., 2014), suggesting a negative association between HPWS, burnout, and consequently intention to leave.

The paper is organized as follows. The next section provides an overview of the Greek context. In the following section, we present the theoretical framework of the study and stipulate the research hypotheses. In the third section, we present the methods employed in this study. The fourth section outlines the main findings of the empirical investigation. Finally, in the last part of the study we discuss the most important conclusions, along with the managerial implications for research and practice.

#### 6.2.4.2 Theory and Conceptual Framework

##### *6.2.4.2.1 The Social and Economic exchange theories*

According to the social exchange theory (Blau, 1964), employers and employees develop an exchange relationship. In general, one contributes to the interest of the other and expects a return at a future time, while it is believed that those receiving a service will develop a sense of obligation to reciprocate. On the other hand, Shore et al. (2006) suggested that employees may develop exchanges not only for socio-emotional, but for economic reasons as well. Therefore, in contrast to social exchange relationships which depend on trust, in economic exchange relationships transactions between parties are not long-term or ongoing, but represent



discrete, financially-oriented transactions. Thus, social exchange emphasizes socio-emotional aspects of the employment relationship (i.e., feelings of obligation and trust), while economic exchange emphasizes the financial and more tangible aspects of the exchange relationship (Shore et al., 2006, p. 839). Hence, economic exchange may include paying for specific work without other investment, such as training.

Overall, the social and economic exchange theories view exchange relationships as comprising tangible and intangible resources governed by the norm of reciprocity. In other words, both theories suggest that each party holds a set of expectations/obligations that they will provide in return for what they receive. Hence, and as has been assumed for HPWS, if an organization provides substantial inducements to employees, then employees are more likely to reciprocate with positive job attitudes and work behaviors (Giannikis and Nikandrou, 2013, p. 3651). In detail, if the employment relationship is an economic exchange, employees might perceive that the gains from the employer are not proportional to their expectations and inputs, they might feel frustrated and consequently not committed or satisfied with the organizational goals. In contrast, if the employment relationship is a social exchange, employees will possibly feel the need to reciprocate with positive attitudes and behaviors towards that employer (Zhang et al., 2013, pp. 3199-3200).

To better understand these relationships, it would be beneficial to examine the similarities to the concept of psychological contract. Indeed, the notion of social exchange served as the theoretical foundation for the development of the well-documented concept of psychological contract (Giannikis and Nikandrou, 2013, p. 3651). Psychological contracts are an individual's beliefs regarding reciprocal obligations and refer to written or unwritten expectations that operate between employees and employers (Rousseau, 1990). When the employer has failed to fulfill its promises or obligations, employees may experience psychological contract breach (Robinson and Rousseau 1994), as opposed to psychological contract fulfillment.

Psychological contract breach could result in negative employee attitudes, as well as increased turnover intentions (e.g., Robinson and Rousseau 1994; Zhao et al., 2007; Suazo et al., 2009). Nonetheless, research suggests that the appropriate use of HR practices will create a positive organizational environment that will influence the degree of employer and employee promise fulfillment (Guest, 1999; Purcell et al., 2003; Suazo et al., 2009), cultivating thus a positive psychological contract. The latter will lead to positive employee attitudes, such as motivation, commitment, and satisfaction, and consequently to improved organizational performance (Boselie et al., 2005; Katou and Budhwar, 2012; Giannikis and Nikandrou, 2013), although research on HRM practices as antecedents to psychological contracts is in need of further development (Suazo et al., 2009).

Hence, as can be inferred by the so far analysis, employee perceptions about the nature of their exchange relationships with their employers can influence their emotions, attitudes, health and performance, and consequently their feelings of job burnout and job satisfaction (Zhang et al., 2013, pp. 3199-3200). Nonetheless, although the argument that HPWS impact employees' attitudes and behaviors through the social exchange mechanism has not been empirically examined, some studies have used the social exchange theory as their theoretical framework (Takeuchi et al., 2009; Zhang and Li, 2009; Gong et al., 2010; Wei et al., 2010; Giannikis and Nikandrou, 2013). Indeed, the relationship between HPWS and social exchange seems promising. HPWS as opposed to individual HR practices provides employees with multiple social resources, such as appreciation, prestige, growth, recognition, fairness and empowerment (Gong et al., 2010, p. 125). In addition, HPWS conveys messages from the organization to its employees that they are highly valued for their skills and knowledge by the organization, while the latter is willing to commit itself to employees' welfare. As a consequence, employees develop positive work-related attitudes by (and towards) their organizational environments (Wei et al., 2010, pp. 1635-1636), while at the same time HPWS

reinforces the tone of the social exchange relationship with employees (Gong et al., 2010, p. 125). Hence, there is an incentive for the employees to remain with the organization and perform at a high level (Takeuchi et al., 2007, p. 1071). Especially for the healthcare sector, Fan et al. (2014, p. 944) suggested that the social exchange theory could be especially crucial in the implementation of HPWS, since employees may interpret HPWS as a sign that they are valued and respected by the organization. Thus, showing loyalty to the organization, even if their jobs are emotionally demanding, is one way for employees to reciprocate the positive treatment they receive from the organization (Bartram et al., 2012, p. 1575). Finally, Ang et al. (2013, p. 3090) suggested that based on the social exchange theory, the organization and front-line managers provide transformational leadership enabling management practices that are reciprocated by employee's socio-emotional benefits, which evolve over time into trusting, loyal and mutual commitments and ultimately lead to appropriate employee attitudes, behaviors and, improved organizational performance.

Taking the above arguments into consideration and since HPWS is likely to influence employees' views about the nature of the employment relationships, it seems reasonable to expect social and economic exchange to become mediating variables between HPWS and employee outcomes in the Greek healthcare context. However, in this paper we chose to follow Zhang et al. (2013) study and examine the moderating effect of these two theories (social and economic exchange) on employees' work-related well-being, burnout and job satisfaction. Hence, we did not examine the mediating effect of these two theories, although these findings could be promising.

#### *6.2.4.2.2 Burnout - Emotional exhaustion and disengagement from work*

Burnout is a psychological syndrome that involves losing concern for the people with whom one is working and is commonly associated with workers in 'caring' professions (Maslach,

1982). Individuals experiencing burnout sense a decline in their feelings of job competency and successful achievement leading to tendencies to characterize themselves negatively (Zellars et al., 2000).

A series of systematic empirical studies in the late 1970s and early 1980s (e.g., Maslach and Jackson, 1981; Maslach, 1982; Maslach and Jackson, 1986) produced a three-component conceptualization of the burnout construct known as the Maslach Burnout Inventory (MBI), which includes feelings of emotional exhaustion, depersonalization, and diminished feelings of personal accomplishment in working with others. However, the MBI was developed exclusively for use in human services professions, and thus, the three subscales of the MBI were applicable only to employees working with other people (Demerouti et al., 2003). Hence, several adaptations of the MBI have been proposed, such as the Oldenburg Burnout Inventory (OLBI, Demerouti et al., 2003). This new instrument includes two dimensions: *exhaustion* and *disengagement from work*. Exhaustion refers to ‘a depletion of emotional resources’ and is defined as ‘a consequence of intensive physical, affective, and cognitive strain’, whereas disengagement refers to ‘distancing oneself from one’s work and experiencing negative attitudes toward the work object, work content, or one’s work in general’ (Demerouti et al., 2010, pp. 210-211). Overall, disengagement concerns the relationship between employees and their job, particularly with respect to their engagement, identification, and willingness to continue the same occupation.

Although burnout has been linked to several negative organizational outcomes, such as chronic emotional exhaustion, cynicism, detachment from work and feelings of ineffectiveness on the job (Laschinger et al., 2003), leading to increased intention to leave (Bartram et al., 2012; Ang et al., 2013), and lower quality of patient care (Aiken et al., 2002) and has been a pervasive organizational problem with significant costs in terms of health and organizational consequences (Zellars et al., 2000; Laschinger et al., 2003; Zhang et al., 2013), there has been

little research exploring how to reduce burnout through appropriate HRM strategies (Zhang et al., 2013). To our knowledge, only a few studies were focused on the relationship between HPWS and burnout in the healthcare sector. For instance, Bartram et al. (2012) found that perceived HPWS not only reduced the strength of the negative effect of emotional labor on burnout but also had a unique negative effect on intention to leave. Zhang et al. (2013) demonstrated that an economic exchange perception increased the possibility that HPWS leads to employees' emotional exhaustion. Similarly, Ang et al. (2013) suggested that HPWS could decrease employees' feelings of burnout through greater engagement, job satisfaction, and affective commitment, resulting thus in less intentions of leaving the hospital. Finally, Fan et al. (2014) found that HPWS increased employees' subjective well-being (SWB) and decreased burnout.

In this study, based on the social and economic exchange theories, taking into consideration the preceding discussions and following the Zhang et al. (2013) study, we assume that the perceived nature of the exchange relationship between employees and employers moderates the relationship between HPWS and burnout. Thus, we propose the following hypotheses:

*Hypothesis 1:* The social exchange perception will decrease the likelihood that HPWS leads to employees' emotional exhaustion. On the contrary, the economic exchange perception will increase the likelihood that HPWS leads to employees' emotional exhaustion.

*Hypothesis 2:* The social exchange perception will increase the likelihood that HPWS leads to employees' work engagement. On the contrary, the economic exchange perception will decrease the likelihood that HPWS leads to employees' work engagement.

#### 6.2.4.2.3 Job satisfaction

Job satisfaction lies at the heart of the HPWS approach. Indeed, it has been argued that discretionary effort is one of the keys to understanding the links between HR practices and organizational performance (CIPD/EEF, 2003, p. 15), which depends on improvements in job satisfaction, organizational commitment, and motivation. This argument is aligned with the *Ability, Motivation, and Opportunities* (AMO) framework (Appelbaum et al., 2000), which feeds directly into the three elements of organizational commitment, motivation, and job satisfaction and supports the fact that HPWS will create highly skilled, engaged and empowered workers who feel valued and enjoy higher job satisfaction. Overall, there is mounting evidence across the HRM literature supporting the positive relationship between HPWS and employee attitudes and behavior, such as job satisfaction (e.g., Wright et al., 2003; Paauwe and Boselie, 2005; Macky and Boxall, 2007, 2008; Danford et al., 2008; Messersmith et al., 2011).

Specifically for the healthcare sector, HPWS has also been associated with higher employee satisfaction (Harmon et al., 2003; Harley et al., 2007; Chang et al., 2009; Chuang et al., 2011; Weinberg et al., 2012; Young et al., 2010). For instance, Leggat et al. (2010) found that job satisfaction moderated the relationship between HPWS and perceived quality of care, while Ang et al. (2013) and Zhang et al. (2013) reported that HPWS can be positively translated into greater engagement, and job satisfaction. Fan et al. (2014) also indicated that the adoption of HPWS would increase employees' subjective well-being, including satisfaction with their lives and their work.

Hence, based on the preceding discussion regarding the social and economic exchange theories and the positive contribution that HPWS can have on employee outcomes and well-being, we propose the following hypotheses:

*Hypothesis 3:* The relationship between HPWS and employees' job satisfaction will be moderated by the perceived exchange relationship between employees and their employers. Specifically, the social exchange perception will increase the likelihood that HPWS leads to employees' job satisfaction. On the contrary, the economic exchange perception will decrease the likelihood that HPWS leads to employees' job satisfaction.

*Hypothesis 4:* Employees' job satisfaction will be negatively associated with their emotional exhaustion.

*Hypothesis 5:* Employees' work engagement will be positively associated with their job satisfaction.

### 6.2.4.3 Measures

All survey items, were measured using a five point Likert-type scale ranging from 1 = strongly disagree, to 5 = strongly agree.

#### 6.2.4.3.1 *High-performance work systems (HPWS)*

Items on HR practices were adapted from established scales or existing measures of HR systems (Zacharatos et al., 2005; Delery and Doty, 1996; Ang et al., 2013). Overall, 31 items were used, encompassing seven sub-scales. A separate component analysis was conducted for each of the seven constructs in the HPWS scale, while a cutoff value of 0.50 was used to indicate satisfactory loading. The number of items that met the loading criterion and the Cronbach's alphas for the seven sub-scales, are as follows: Recruitment and selection (four of five items included,  $\alpha = 0.789$ ), training and development (six of seven items included,  $\alpha = 0.863$ ), employee autonomy (all five items included,  $\alpha = 0.807$ ), participation in decision-

making (all four items included,  $\alpha = 0.787$ ), employment security (all four items included,  $\alpha = 0.831$ ), job clarity (three of four items included,  $\alpha = 0.884$ ), and performance management (all five items included,  $\alpha = 0.898$ ). The Cronbach's alpha for the single-index HPWS measure was 0.915.

#### 6.2.4.3.2 *Social exchange*

The perceived nature of social exchange between employers and employees was measured with a five-item scale developed by Shore et al. (2006), loaded into a single factor. Sample items include 'My hospital has made a significant investment in me' and 'Even though I may not always receive the recognition [from my hospital] I deserve, I know my efforts will be rewarded in the future'. The Cronbach's alpha for the single index measure was 0.833.

#### 6.2.4.3.3 *Economic exchange*

The perceived nature of economic exchange between employers and employees was measured with a five-item scale developed by Shore et al. (2006), loaded into a single factor. Sample items include 'My relationship [with my hospital] is strictly an economic one – I work and they pay me' and 'I do what my hospital requires, simply because they pay me'. The Cronbach's alpha for the single index measure was 0.792.

#### 6.2.4.3.4 *Emotional exhaustion*

Emotional exhaustion was measured using the eight-item scale of the Oldenburg Burnout Inventory (OLBI) developed by Demerouti et al. (2010). A separate component analysis with a cutoff value of 0.50 was used to indicate satisfactory loading. Finally, four items were used, loaded into a single factor. These four items are generic and refer to general feelings of overtaxing from work, a strong need for rest, and a state of physical exhaustion. These four



items are ‘There are days when I feel tired before I arrive at work’, ‘After work, I tend to need more time than in the past in order to relax and feel better’, ‘During my work, I often feel emotionally drained’, and ‘After working, I have enough energy for my leisure activities’ (R). The Cronbach’s alpha for the single-index measure was 0.759. (R) means reversed item.

#### 6.2.4.3.5 *Work engagement*

Similarly to emotional exhaustion, work engagement was measured using the Oldenburg Burnout Inventory (OLBI) developed by Demerouti et al. (2010). A separate component analysis with a cutoff value of 0.50 was used to indicate satisfactory loading. Finally, four items were used, loaded into a single factor. These four items are ‘I always find new and interesting aspects in my work’, ‘It happens more and more often that I talk about my work in a negative way’ (R), ‘Sometimes I feel sickened by my work tasks’ (R), and ‘I feel more and more engaged in my work’. The Cronbach’s alpha for the single-index measure was 0.677. (R) means reversed item.

#### 6.2.4.3.6 *Job satisfaction*

Job satisfaction was measured by using three items developed by Seashore et al., (1983). Sample items include ‘All in all, I am satisfied with my job’ and ‘In general, I like working here’. The scale’s  $\alpha$  reliability was 0.643.

#### 6.2.4.3.7 *Common Method Variance*

Although our data were collected through different sources, they were obtained by the same method, a 5-point Likert scale. Thus, we used Harmon’s single-factor test to exclude the possibility of Common Method Variance (CMV). A principal component analysis was conducted between all of the variables that were used to measure HPWS, emotional exhaustion,

work engagement, social exchange, economic exchange, and job satisfaction. We chose one fixed number of factors to be extracted for all measured variables, which according to the results explained only 22.5% of the variance approximately. Therefore, since this single factor did not explain the majority of the variance in the variables, common method bias is not likely to be an issue in our analysis.

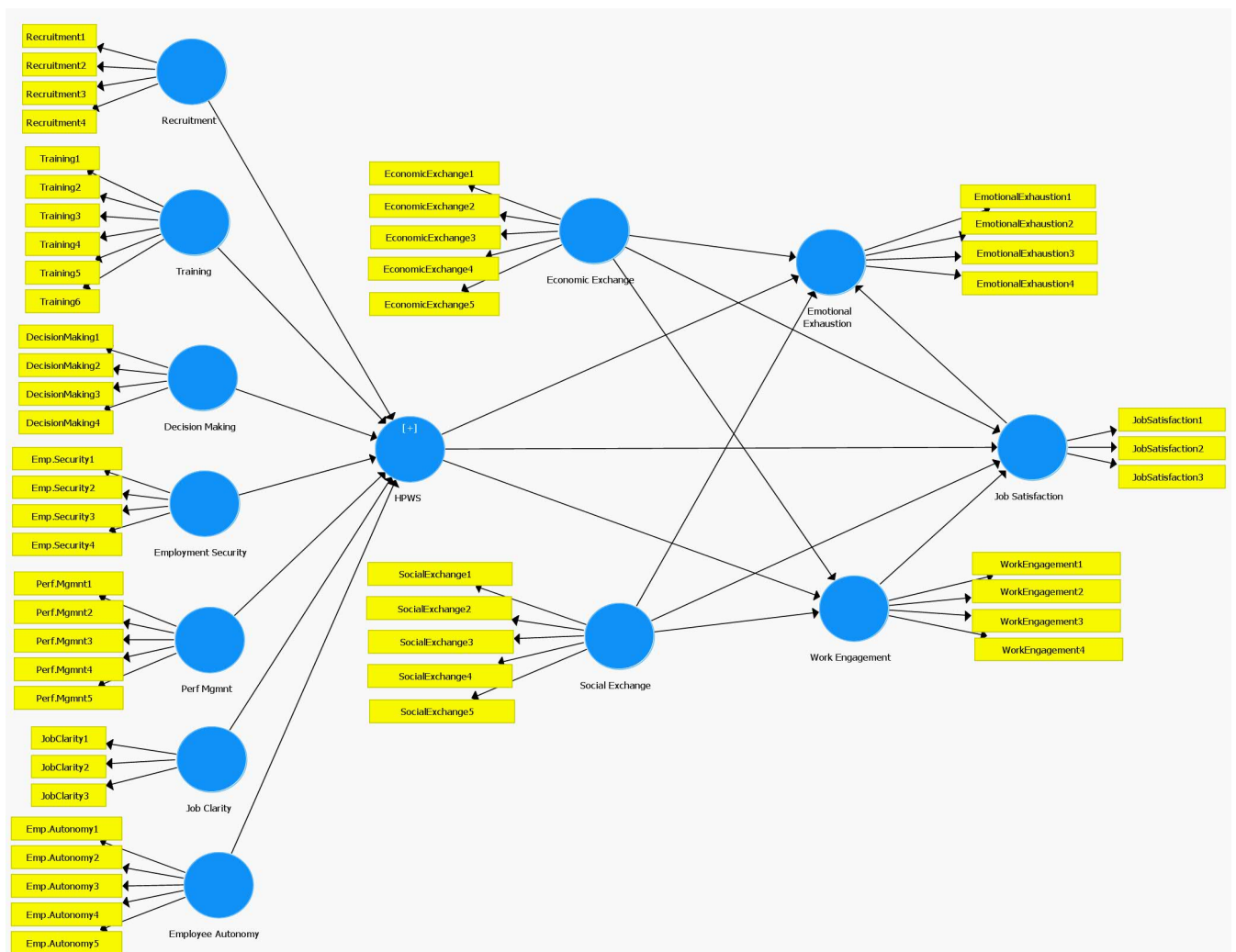
#### 6.2.4.4 Statistical Model

SPSS v. 22 was used to conduct descriptive statistical analysis and exploratory factor analysis. We tested our hypotheses by means of Partial Least Squares (PLS) Structural Equation Modeling (SEM) using the SmartPLS 3.0 software (Ringle et al., 2014). Overall, PLS-SEM has several advantages when compared to the covariance based structural equation modeling (SEM) techniques. For instance, it is free from distributional assumptions of normality, while it can be used to analyze data from small samples. Of particular relevance to this study, PLS-SEM incorporates both formative and reflective constructs, as well as Hierarchical Component Models (HCMs). In HCMs a general construct is defined that consists of several sub-dimensions. Thus, while the more general construct becomes part of the structural model, additional information can be found on the sub-dimensions by using a second-order model. By using HCMs, we are able to reduce the number of relationships in the structural model, making the PLS path model more parsimonious and easier to grasp (Hair et al., 2014, p. 229).

Overall, these HCM models have two elements, namely the higher-order components (HOC), which capture the more abstract entity, and the lower-order components (LOCs), which capture the sub-dimensions of the abstract entity. Each of the HCM types is characterized by different relationships between the HOC and the LOCs (reflective or formative) and between the constructs and their indicators (reflective or formative). In our structural model, HPWS was operationalized as ‘reflective-formative’ higher-order component. Specifically, HPWS

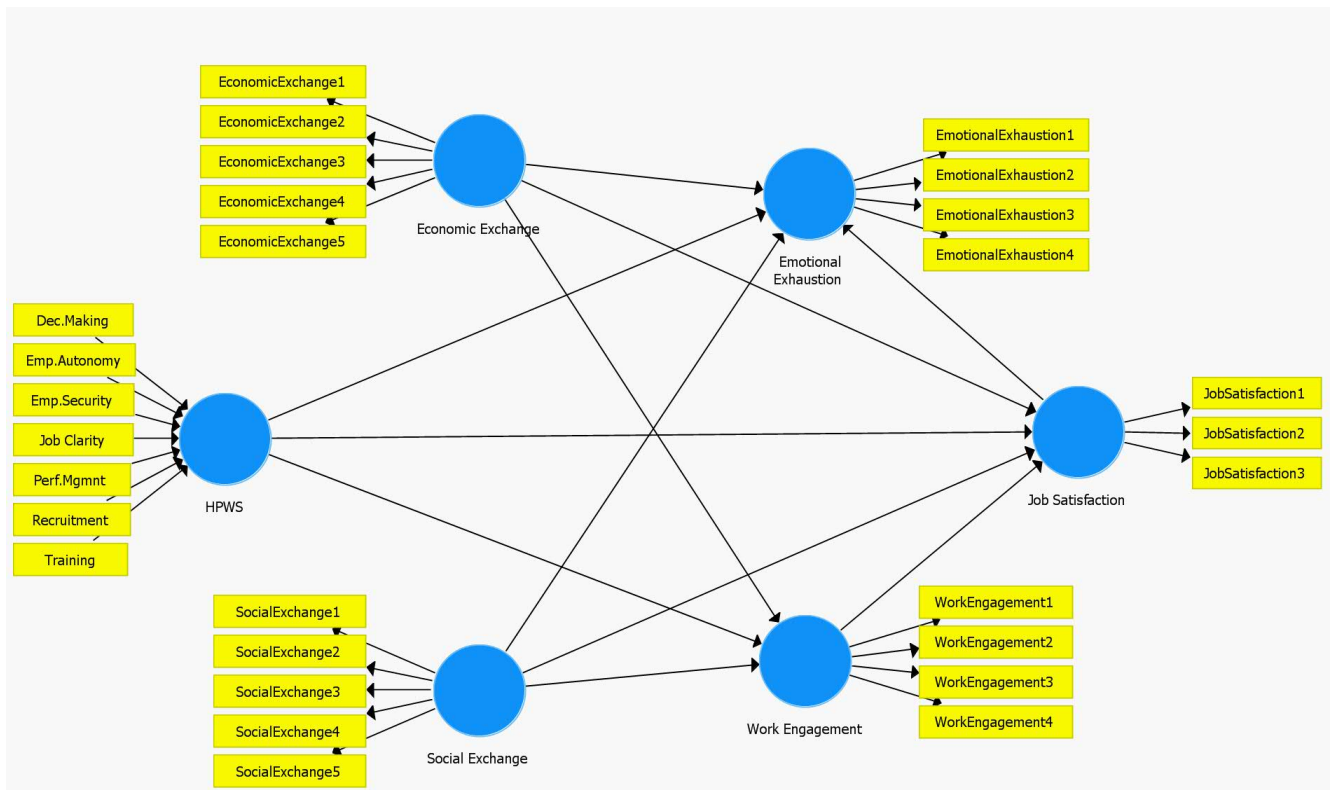
consisted of the seven individual HR Practices. Each HR Practice was measured by its reflective indicators, while their relationship with the HPWS construct was indicated as formative. The reflective-formative HCM and the proposed model are depicted in figure 6.1.

**Figure 6.1 The proposed model**



Finally, in establishing the final Hierarchical Component measurement model we followed the ‘repeated indicators approach’ combined with the ‘two-step approach’. Additional information in performing these procedures can be found in Hair et al. (2014, pp. 230, 233) and Lowry and Gaskin, (2014, p. 135). The final model (two-step approach) is depicted in Figure 6.2.

**Figure 6.2 The Two-step approach model**



#### 6.2.4.5 Validity and Reliability

Before running the PLS analysis, we had to configure the model's reliability and validity. Since all first-order constructs used in the model were reflective, we evaluated *individual indicator reliability*, the *composite reliability* to evaluate internal consistency, the *convergent validity* of the measures associated with each construct and their *discriminant validity* (Hair et al., 2014, p. 95). Regarding the *individual indicator reliability* for the reflective constructs, only four items (two in Work Engagement, one in Economic Exchange, and one in Social Exchange) were slightly below the threshold of 0.7. The lowest value was reported for the one reverse-coded item of Job Satisfaction (0.582). However, since all of the examined t-values of the outer model loadings were significant at the 0.05  $\alpha$  level, we retained them in the model. *Composite reliability*, was greater than 0.7, and thus was confirmed. In addition, the Average Variance Extracted (AVE) extracted was above the threshold of 0.5, confirming thus *convergent validity*. All measures are reported in table 6.1.

**Table 6.1. Composite reliability, Average Variance Extracted (AVE) and convergent validity**

Construct (latent variable)	Composite reliability	Loadings	T-Statistics	Average Variance Extracted (AVE)	Convergent & Discriminant Validity
Recruitment & Selection	0.864	Min: 0.725 Max: 0.836	***	0.615	Yes
Training & Development	0.898	Min: 0.727 Max: 0.838	***	0.596	Yes
Decision Making	0.862	Min: 0.707 Max: 0.880	***	0.611	Yes
Employment Security	0.880	Min: 0.747 Max: 0.845	***	0.648	Yes
Performance Mgmnt	0.925	Min: 0.771 Max: 0.911	***	0.712	Yes
Job Clarity	0.928	Min: 0.871 Max: 0.920	***	0.812	Yes
Employee Autonomy	0.862	Min: 0.704 Max: 0.803	***	0.556	Yes
Economic Exchange	0.853	Min: 0.635 Max: 0.815	***	0.538	Yes
Social Exchange	0.880	Min: 0.695 Max: 0.854	***	0.596	Yes
Emotional Exhaustion	0.842	Min: 0.716 Max: 0.787	***	0.571	Yes
Work Engagement	0.805	Min: 0.657 Max: 0.771	***	0.509	Yes
Job Satisfaction	0.805	Min: 0.582 Max: 0.873	***	0.586	Yes

\*indicates significant paths: \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ , ns (not significant)

To determine the *discriminant validity* of our indicators, we used two established techniques. First, we checked for cross-loadings. Secondly, we used the Fornell-Lacker criterion which compares the AVE values with the latent variable correlations. Since the square root of each construct's AVE was greater than its highest correlation with any other construct (table 6.2), discriminant validity was confirmed for all sub-constructs.

**Table 6.2. Discriminant validity through the Fornell-Lacker criterion (Square Root of AVE on diagonal)**

	1	2	3	4	5	6	7	8	9	10	11	12
Decision. Making (1)	<b><u>0.782</u></b>											
Economic Exchange (2)	-0.146	<b><u>0.734</u></b>										
Emotional Exhaustion (3)	-0.181	0.206	<b><u>0.756</u></b>									
Employee Autonomy (4)	0.283	-0.193	-0.152	<b><u>0.746</u></b>								
Employment Security (5)	0.325	-0.224	0.009	0.216	<b><u>0.805</u></b>							
Job Clarity (6)	0.378	-0.103	-0.212	0.237	0.074	<b><u>0.901</u></b>						
Job Satisfaction (7)	0.241	-0.240	-0.309	0.301	0.090	0.187	<b><u>0.765</u></b>					
Performance Mgmt (8)	0.564	-0.257	-0.108	0.303	0.305	0.552	0.266	<b><u>0.844</u></b>				
Recruitment (9)	0.257	-0.253	-0.113	0.314	0.142	0.340	0.299	0.507	<b><u>0.784</u></b>			
Social Exchange (10)	0.284	-0.391	-0.349	0.395	0.244	0.382	0.317	0.377	0.284	<b><u>0.772</u></b>		
Training (11)	0.558	-0.129	-0.073	0.270	0.173	0.499	0.212	0.660	0.564	0.330	<b><u>0.772</u></b>	
Work Engagement (12)	0.181	-0.332	-0.479	0.303	0.083	0.365	0.567	0.292	0.252	0.460	0.154	<b><u>0.714</u></b>

Next, the validity and reliability of the formative scale (HPWS) was checked by following the procedures described in Petter et al., (2007). For instance, face and content validity of the formative construct is derived from theory, while the construct under investigation is considered abstract and complex. In addition, following Cenfetelli and Bassellier (2009), we tested the formative factors for multicollinearity by calculating the Variance Inflation Factors (VIFs) of the items in the formative construct. In our case, all of the VIFs of the indicators were below 3.33, indicating sufficient construct validity for our formative indicators.

Finally, we evaluated the quality of the structural model by using the R-square of the dependent variable (Chin, 1998), and the Stone-Geisser Q-square test for predictive relevance (Hair et al., 2014, p. 167). In our case, the R<sup>2</sup> value for the endogenous constructs (emotional exhaustion, work engagement, job satisfaction) were adequate (0.128, 0.264, and 0.347 respectively), while most of the path coefficients were substantial and significant. Last but not least, two separate analyses with 7 and 25 omission distances were undertaken (blindfolding technique in SmartPLS) to test the stability of the findings. As the values were stable for both omission distances and all of the Q-squares were greater than zero, we were confident that the model was stable and the predictive relevance requirement was satisfied. We chose not to include the goodness-of-fit (GoF) as a criterion for PLS-SEM, since it is believed that it is not able to separate valid models from invalid ones, while it is not applicable to formatively measurement models (Hair et al., 2014, p. 185; Henseler and Sarstedt, 2012, p. 577).

#### 6.2.4.6 Results

To analyze the hypotheses in the structural model, we ran the full model (figure 6.2) with a bootstrapping procedure that used 500 randomly drawn samples with replacement. The algorithm converged in 12 iterations, while the model was controlled for age, and gender. Since there were no significant effects for these control variables, we excluded them from the

analysis. A summary of the path coefficients and their significance levels are summarized in table 6.3.

**Table 6.3. Summary of Path Coefficients and Significance levels**

Hypotheses and corresponding paths	Path Coefficient	T-Statistics	Hypotheses Support
Social Exchange → Emotional Exhaustion	-0.241	3.679***	H1 partially supported
Economic Exchange → Emotional Exhaustion	0.042	ns	
Social Exchange → Work Engagement	0.266	4.299***	H2 not supported
Economic Exchange → Work Engagement	-0.155	2.350*	
Social Exchange → Job Satisfaction	0.006	ns	H3 not supported
Economic Exchange → Job Satisfaction	-0.033	ns	
Job Satisfaction → Emotional Exhaustion	-0.260	3.097**	H4 supported
Work Engagement → Job Satisfaction	0.503	10.242***	H5 supported
HPWS → Job Satisfaction	0.142	2.138*	-- --
HPWS → Emotional Exhaustion	-0.169	Ns	
HPWS → Work Engagement	0.451	10.126***	

\*indicates significant paths: \*p<0.05, \*\*p<0.01, \*\*\*p<0.001, ns = not significant

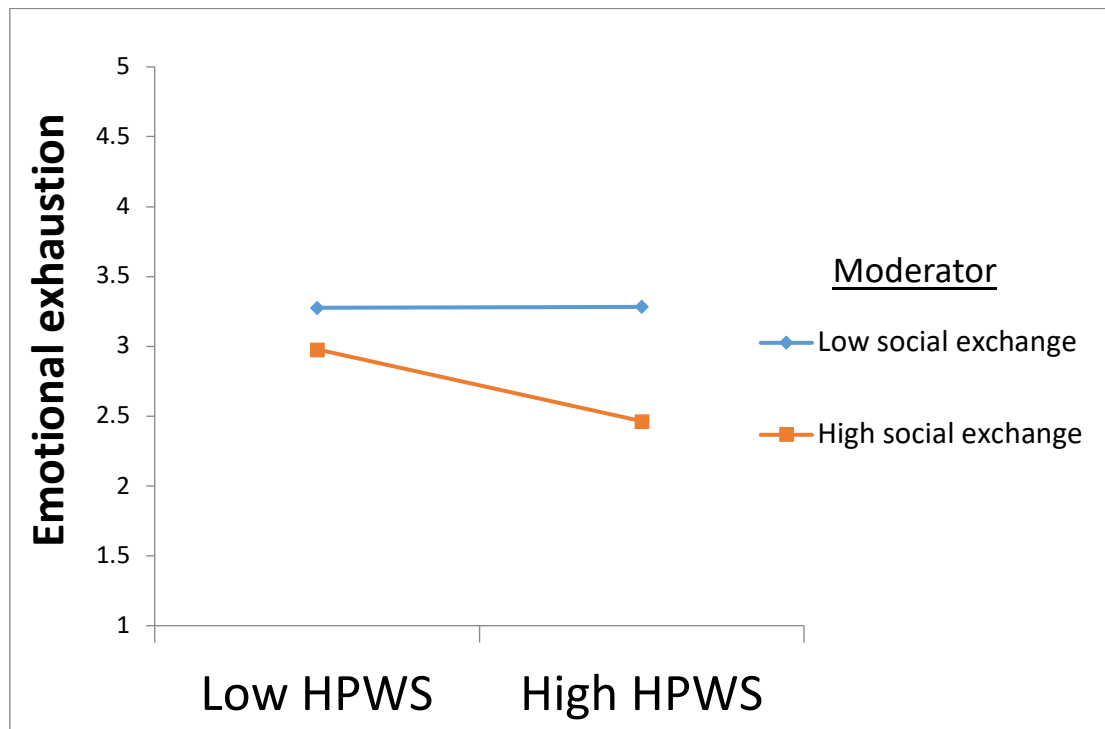
Table 6.3 presents some interesting findings. First of all, HPWS was positively associated with work engagement ( $\beta= 10.126$ , path coefficient = 0.451) and job satisfaction ( $\beta= 2.138$ , path coefficient = 0.142). On the other hand, although HPWS was negatively associated with emotional exhaustion, the effect was not statistically significant.

In addition, the results of the analysis showed that the perceived nature of the relationship between hospitals and their employees was in part an important factor influencing employees' well-being. Specifically, employees' emotional exhaustion would decrease if the employment relationship was perceived by employees as a social exchange. However, if the employment relationship was perceived as an economic exchange, the effect was not statistically significant, although positive. Hence, hypothesis 1 was partially supported. Figure 6.3 provides the



moderating effect of social exchange perception on the relationship between HPWS and emotional exhaustion.

**Figure 6.3 The moderating effect of social exchange perception on the relationship between HPWS and emotional exhaustion**



Moreover, although the economic exchange perception had a significantly negative effect on work engagement ( $\beta = 2.350$ , path coefficient =  $-0.155$ ), its negative effect on job satisfaction (path coefficient =  $-0.033$ ) was not significant. On the other hand, social exchange perception had a significant positive effect on work engagement ( $\beta = 4.299$ , path coefficient =  $0.266$ ). However, its effect on job satisfaction was not significant. Last but not least, although the findings showed that the economic exchange and the social exchange perceptions did influence the HPWS effect on work engagement and job satisfaction respectively, the interaction effects were not significant. Hence, hypotheses 2 and 3 were not supported.

Finally, employees' job satisfaction was negatively and significantly associated with emotional exhaustion ( $\beta = 3.097$ , path coefficient =  $-0.260$ ), and thus hypothesis 4 was

supported. Similarly, work engagement was positively and significantly associated with job satisfaction ( $\beta = 10.242$ , path coefficient = 0.503), providing support for hypothesis 5. Hence, it can be inferred that satisfied employees are more likely to be involved with their jobs, and less likely to be emotionally exhausted.

Although the control variable of gender and age had no significant effect on our final model, we also controlled for the potential impact of job position (doctors vs nurses). Indeed, there were some significant differences between the two occupational groups. First of all, social exchange moderated the relationship between HPWS and emotional exhaustion only for the doctors' group, as opposed to the nursing one. Hence, hypothesis 1 was partially supported only for the doctors' group. On the other hand, hypothesis 2 and 3 were not supported for neither groups. Furthermore, the direct effect of HPWS on employees' job satisfaction was statistically significant only for the doctors' group, while its effect on employees' emotional exhaustion only for the nursing group. In contrast, HPWS had a positive and significant effect on employees' work engagement for both groups. Finally, although job satisfaction was negatively associated with emotional exhaustion for both occupational groups, its effect was not significant for nurses. Hence, hypothesis 4 was supported for the doctors' group only. Similarly, and since work engagement had a positive and significant effect with job satisfaction, hypothesis 5 was supported for both groups. However, one should interpret these findings with caution. Specifically, the generation of the two occupational groups resulted in rather small samples for nurses (119) and doctors (177). Hence, the resulting small samples might mislead these findings regarding the differences between the two occupational groups, namely doctors and nurses.

#### 6.2.4.7 Discussion and conclusions

The findings of this paper offer some useful insights.

First of all, it was indicated that HPWS has the potential to lead to work engagement, and job satisfaction. These findings support previous studies' conclusions relating HPWS with higher employee satisfaction (Harley et al., 2007; Chang et al., 2009; Leggat et al., 2010; Young et al., 2010; Chuang et al., 2011; Weinberg et al., 2012; Ang et al., 2013; Fan et al., 2014) and reduced burnout (Bartram et al., 2012; Fan et al., 2013) or greater engagement (Ang et al., 2013).

In addition, our findings confirm Zhang et al. (2013, p. 3209) argument that 'it is not unconditional or inevitable that HPWS will lead to decreased emotional exhaustion or greater work engagement'. Indeed, the HPWS effects on employee outcomes seem to be influenced by their perceived nature of the exchange relationship with their employers. Specifically, it was indicated that if employees perceive their relationship with the hospitals as a social exchange, emotional exhaustion would decrease. On the other hand, an economic exchange relationship had not significant effect on emotional exhaustion. These findings provided partial support for hypothesis 1. Similarly, although the findings showed that the perceived exchange relationship did influence the HPWS effect on work engagement and job satisfaction respectively, the interaction effects were not significant. Hence, hypotheses 2 and 3 were not supported.

Furthermore, our findings indicated that employees' job satisfaction was negatively associated with emotional exhaustion, while, in contrast, work engagement was positively associated with job satisfaction, providing support for hypotheses 4 and 5. Hence, it can be inferred that satisfied employees are more likely to be involved with their jobs, and less likely to be emotionally exhausted, supporting Zhang et al., (2013) argument.

Last but not least, when we controlled for job position (doctors vs nurses) the results were indeed interesting. Hypotheses 1 and 4 were supported for the nursing group only, while hypothesis 5 was supported for both occupational groups. Hypotheses 2 and 3 were not supported for any of the groups. These differences between the two occupational groups should

be expected, since there are distinct differences in the nature of the employment relationship among these occupational groups. For instance, medical practitioners might not be employees of the hospital, but rather independent practitioners who have little association with the organizations in which they practice their profession. Nursing staff on the other hand are typically employees of the hospital. Taking into account the shortage that the nursing profession is generally facing, effective retention strategies are needed as opposed to other professions in a hospital (Ang et al., 2013, p. 3090). In addition, and specifically for the Greek healthcare sector, the salaries and benefits are disproportional when compared to the actual amount of work, while doctors and allied health professionals are constantly seeking employment in other countries around the world, such as Germany, the UK, and Sweden, as opposed to nurses. We should underscore though that since doctors outnumber the number of nurses in the sample, one should interpret these findings with caution, while further research is needed regarding the HPWS effects on different occupational groups, especially within a healthcare setting.

Taking these findings into consideration, we also conclude that it is indeed premature to theorize that HPWS ‘will inevitably improve the well-being of all employees or that its introduction is a one-time event’ (Zhang et al., 2013, p. 3209). Specifically, there are different types of HPWS in practice and across countries, and these variations may have different effects on employee outcomes (Zhang et al., 2013, p. 3198). For instance, a profit-oriented HPWS can be used for enhancing financial performance at the cost of employees, producing burnout and job dissatisfaction (Ramsay et al., 2000). In contrast, HPWS can also be used for increasing organizational performance through eliciting positive employee outcomes such as high commitment and job satisfaction, leading to greater work engagement and employees’ well-being (Sparham and Sung, 2007). In addition, and as Ang et al. (2013) argued, although HPWS has positive effects on employee outcomes, this effect is significant only when management’s

implementation of HPWS is similar to employees' espoused HR practices. Hence, special attention is needed when examining the HPWS-well-being linkage and its effects on employee outcomes.

Moreover, our research adds to the broader HRM literature, since it not only follows an employee-centered study, restoring the effects of HRM on employee outcomes to a central position of HPWS studies, but it also takes place in the Greek social context. Hence, and following Takeuchi et al. (2007, p. 1080), given that the theoretical underpinning of the present study was derived from theories of advanced economies (e.g., USA / UK), the Greek sample may be considered a strength of this study since it illustrates theoretically-derived relationships in a non-US/UK context.

Furthermore, and surprisingly enough, among the seven HR practices constituting the HPWS construct only 'employment security' had an insignificant effect. This finding is of significant importance, since employment security encourages people to take a longer-term perspective on their jobs and organizational performance (Pfeffer, 1998) and represents an investment of time and resources in employees, which would be reciprocated in terms of loyalty to the organization. In addition, trust in management will also result from employment security, not to mention its linkage with occupational safety (Zacharatos et al., 2005, p. 78). To our knowledge, the insignificant effect of 'employment security' might also be explained by the differences we mentioned regarding the nature of the employment relationship among the two occupational groups (doctors and nurses) in the Greek context. Hence, although 'employment security' seems to be a significant HR practice in the HPWS construct based on the HR literature, this might not be the case for the Greek healthcare industry.

Finally, although the majority of previous studies have not examined the individual HPWS practices effects on employee outcomes and performance but have treated HPWS as a single index, Takeuchi et al. (2009, p. 23) suggested that some sub-components of HPWS may have

differential effects on mediators and dependent variables. Thus, and since in our case ‘employment security’ was the only HR practice that had a weak bivariate relationship to the HPWS construct, special attention should be given to the individual HR practices’ contribution to the HPWS construct by HR researchers and practitioners.

Overall, and by following an employee-centric approach, this study examines the moderating effect of the social and economic exchange perceptions on employees’ emotional exhaustion, work engagement, and job satisfaction. Although we make no attempt to generalize our findings, it seems reasonable to argue that these might be of particular interest to health-care researchers and practitioners of other countries with similar economic traits.

## Empirical Study #2

### **Modeling patient care quality: an empirical high performance work system approach**

This empirical study has been published in the 'Personnel Review' Journal.

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### 6.2.5.1 Introduction

In general, the literature review reports positive effects of HPWS on employee outcomes and organizational performance. However, one fact that should not be neglected is that HRM research is often predicted from an individual rather than on a group perspective, whereas the HRM impact on employee attitudes and performance can be described as a social process. For the healthcare sector especially, where different occupational and professional groups work in multidisciplinary teams, it is extremely important to follow a social identity approach (Bartram et al., 2014, pp. 2401–2402). Social identification refers to the inclination of a particular individual to perceive himself or herself as representative of a particular group, which makes the individual perceive characteristic group features as self-descriptive and leads him or her to adopt distinctive group norms as guidelines for his or her own behavior (Ellemers et al. 2004, p. 462). Thus, in this study we extend previous research and propose that HPWS will have a strong impact on the health care practitioners' social identity, which in turn will enhance their psychological empowerment and ultimately lead to higher clinician perceptions of the quality of patient care. Hence, social identification will act as a mediator on the relationship between HPWS and psychological empowerment, while the latter is expected to mediate the relationship between HPWS and quality of care.

### 6.2.5.2 Theory and Conceptual Framework

#### 6.2.5.2.1 *The Social Identity Theory*

According to the central assumption of the Social Identity Theory people wish 'to belong to a group they perceive to be distinct from other groups in order to raise their self-esteem' and it is this perception of the group which forms the basis of the individual's social identity (Tajfel and Turner, 1986). Indeed, the group context and the shared understanding of the nature and characteristics of the group are believed to have a strong impact on cohesion, leadership, and



on the relationship between attitudes and behaviors (Abrams and Hogg, 2004, p. 103). In other words, social identification leads individuals to perceive themselves in terms of the characteristics they share with other members of their in-groups, their shared social identity - rather than in terms of the idiosyncratic characteristics that differentiate them from other individuals, their personal identity (Turner et al., 1987; Van Knippenberg, 2000, p. 358). Thus, when group identification is weak or absent, people view themselves primarily as unique individuals. In contrast, when people identify highly with their group, they see themselves primarily as group members, belongingness to the collective is strengthened and hence, social identification acts as a 'social glue' (Van Vugt and Hart, 2004, p. 587).

Although research has demonstrated that many HPWS practices are associated with social cohesion (Bartram et al., 2014, p. 2404), there is a dearth of empirical studies examining the HPWS effect on social identification. Thus, the present study attempts to show that the HR practices comprising a HPWS can have a positive effect on employees' social identity. For instance, *employment security* which encompasses policies and practices that support stable employment for staff who are performing acceptably (e.g., Macky and Boxall, 2007; Wood and Albanese, 1995) encourages people to take a longer-term perspective on their jobs and organizational performance (Pfeffer, 1998) and represents an investment of time and resources in employees, which would be reciprocated in terms of loyalty to the organization (Zacharatos et al., 2005), producing greater identification with the team. *Training* at the team level, provides employees with the appropriate knowledge, skills, and abilities and has been associated with self-efficacy (Axtell and Parker, 2003). Rigorous training represents organizational investment in and commitment to the employee, and it signals that they are considered important to the survival and success of the organization (Takeuchi et al., 2007, p. 1071). In addition, it allows employees to acquire greater competencies to control their work and constitute an incentive for them to remain with the organization and perform at a high level (e.g., Barling et al., 2003;

Guthrie, 2001; Way, 2002), influencing thus organizational performance (e.g., Barling et al., 2003; Katou et al., 2014). Further, it enables team members to coordinate their activities and develop a shared understanding of tasks (Postmes, 2003) and make sure that the identity of the team is consistent with the broader organizational goals. *Selective hiring* describes practices associated with ensuring that open positions are filled with the highest quality candidates available from the applicant pool (Garman et al., 2011; Sels et al., 2006). In addition, it focuses on the fit between employees and their work environment (Zacharatos et al., 2005), and it is this fit that can lead to the greater social identity of employees who share similar characteristics. Overall, the emphasis in selective staffing and comprehensive training contributes to a high level of collective human capital for the workforce (e.g., Huselid, 1995; Way, 2002) and might also serve as socialization tactics that help develop social capital by attracting employees who hold similar values (Takeuchi et al., 2007, p. 1071). In addition, *self-managed teams and decentralized decision-making* help in promoting social cohesion while influencing employees' social identification. Specifically, these practices help teams promote the sharing of ideas that result in better solutions to problems, enable individuals to feel more responsible for their own and each other's, and thus benefit overall employee performance (Pfeffer, 1998; Zacharatos et al., 2005) and productivity (Birdi et al., 2008). Moreover, *performance management*, such as contingent compensation, contributes to employees' feeling valued by the organization when their behaviors are rewarded (Pfeffer, 1998; Zacharatos et al., 2005). Specifically for team incentives, these can lead to enhanced group loyalty and cohesion influencing employees' social identification. Finally, *high-quality work* (which includes job clarity and employee autonomy), a critical component of HPWS as described by Zacharatos et al. (2005), ensures that employees are engaged intellectually and emotionally and can thus create a greater sense of loyalty.

To our knowledge, only Young et al. (2010) and Bartram et al. (2014) followed a social identity approach and found a strong positive relationship between HPWS and social identification. Taking all of the above into consideration, we propose the following hypothesis.

Hypothesis 1: HPWS will be positively related to social identity.

#### *6.2.5.2.2 Psychological Empowerment*

Empowerment can be defined as a process of enhancing feelings of self-efficacy among organizational participants (Conger and Karungo, 1988). Overall, there are two basic theories of empowerment, namely structural and psychological. Workplace / structural empowerment is defined by Kanter's (1977) theory as having the power to access the structural factors within the work environment that enable the employee to get work done. In contrast, Spreitzer (1995) defined psychological empowerment as a psychological state that employees must experience for managerial interventions to be successful. In other words, it is not the conditions of the work context or the perception of the presence or absence of empowering conditions in the workplace but the employees' psychological interpretation or reactions to these conditions that influence their organizational behavior (Knol and Van Linge, 2009, p. 361). According to Spreitzer (1995), psychological empowerment can be categorized into four components, namely: meaning (a fit between the requirements of the job tasks and the subject's own values); competence (the subject's belief that he or she possesses the skills and abilities necessary to perform a job or task well); self-determination (the subject's feeling of having control over his or her own work); and impact (the belief that the subject has a significant influence over strategic, administrative, or operational outcomes at work).

Even though the HPWS—psychological empowerment relationship has not been examined extensively through the literature, there is evidence proving a direct significant effect between

the two. For instance, in the Australian healthcare sector it was found that among nurses (Leggat et al., 2010) and clinicians, including doctors, nurses, and allied health professionals (Bartram et al., 2014; Bonias et al., 2010) HPWS had a significant positive correlation with psychological empowerment. Hence, we propose that HPWS can have a positive impact on psychological empowerment.

Hypothesis 2: HPWS will be positively related to psychological empowerment.

In addition, since teamwork among healthcare professionals is critical for increased quality of patient care, we propose that social identification could be regarded as an important antecedent between HPWS and psychological empowerment, while having the potential to mediate this relationship. Indeed, HPWS components can influence employees' values, attitudes and behaviors through creating a shared sense of belonging, especially when working in teams. The unity among team members enables them to exercise additional discretionary effort, while, at the same time, it enhances their interpersonal relationships, which altogether can lead to solving any potential problems and differences that may arise in a collective manner. Thus, people feel empowered to contribute to the organizations' goals and perceive themselves as an important part of the team, leading to greater feelings of psychological empowerment (Bartram et al., 2014, p. 2406).

Hypothesis 3: Social identity will mediate the relationship between HPWS and psychological empowerment.

#### *6.2.5.2.3 Quality of Care*

In the healthcare industry, researchers place particular emphasis on clinical performance, which consists of both patient quality of care and patient safety (Townsend et al., 2013). Specifically, quality of care is commonly- and widely-seen in studies in health care, and is defined as the ‘degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge’ (Lohr and Schroeder, 1990, p. 707). Quality of care has been measured as patient mortality, reduction in adverse events, waiting times and infections, quality patient care continuity, and patient satisfaction. Overall, patient satisfaction (Bonias et al., 2010; Leggat et al., 2010, 2011) has been confirmed as a valid measure of clinical patient outcomes (Kane et al., 1997) and therefore an appropriate measure of quality of care.

Nonetheless, the question remains in the literature regarding the most efficient way of measuring quality of patient care, whether from the perceptions of clinicians, patients or with clinical outcomes. Donabedian (1980) distinguished two aspects of quality of care, namely technical and interpersonal. The former refers to the appropriate application of professional knowledge and skills to promote healthcare, while the latter involves both the relationships between patients and healthcare professionals as well as the contextual aspects of care. Research indicates that, although patients are able to judge the interpersonal aspects, they do not feel qualified to assess the technical quality. This finding, coupled with the evidence that process measures of quality are most effective, suggests the need for clinician measures of quality of care (Bartram et al., 2014, p. 2407). Clinician perceptions of patient care is a widely-used and accepted indicator of quality of patient care within the health-care industry (Rubin et al., 2001), while clinical quality measures and patient experience are expected to correlate at the level of health professionals (Sequist et al., 2008). Thus, health professionals’ self-report

measure of clinical care has been used by various researchers to measure the quality of care delivered (Bartram et al., 2014; Bonias et al., 2010; Leggat et al., 2010, 2011).

Within the health care sector, research has indicated that psychological empowerment is directly related to perceptions of quality of patient care among clinicians (Bartram et al., 2014; Leggat et al., 2010, 2011) and can act as a mediator in the HPWS–quality of care relationship (Bonias et al., 2010). In other words, the presence of psychological empowerment can be fundamental in the quality of patient care delivery. Thus, we propose the following hypotheses.

Hypothesis 4: Psychological empowerment will be positively related to perceived quality of patient care.

Hypothesis 5: Psychological empowerment will mediate the relationship between HPWS and the perception of the quality of care.

### 6.2.5.3 Measures

All survey items, were measured using a 5 point likert scale ranging from 1 = strongly disagree, to 5 = strongly agree.

#### 6.2.5.3.1 *High-performance work systems*

Items on HR practices were adapted from established scales or existing measures of HR systems (Ang et al., 2013; Delery and Doty, 1996; Zacharatos et al., 2005). Overall, 31 items were used, encompassing seven sub-scales. A separate principal component analysis was conducted for each of the seven constructs in the HPWS scale, while a cutoff value of 0.50 was used to indicate satisfactory loading. The number of items that met the loading criterion and the Cronbach's alphas for the seven sub-scales are as follows: Recruitment and selection (four

of five items included,  $\alpha = 0.788$ ), training and development (six of seven items included,  $\alpha = 0.863$ ), employee autonomy (all five items included,  $\alpha = 0.807$ ), participation in decision-making (all four items included,  $\alpha = 0.786$ ), employment security (all four items included,  $\alpha = 0.831$ ), job clarity (three of four items included,  $\alpha = 0.884$ ), and performance management (all five items included,  $\alpha = 0.898$ ). The Cronbach's alpha for the HPWS measure was 0.877. The complete list of the HPWS practices used can be found in the appendix, along with their loadings.

#### *6.2.5.3.2 Social identification*

Following the suggestion of Hinkle et al. (1989, p. 314), social identification was measured using the emotional and cognitive components of the social identification scale. Principal Component Analysis with a cutoff value of 0.50 was used to indicate satisfactory loading. Finally, six items were used, loaded into a single factor. Sample items include: 'I identify with this group'; 'I think this group worked well together'; and 'I feel strong ties to this group'. The Cronbach's alpha for the 6-item scale was 0.829.

#### *6.2.5.3.3 Psychological Empowerment*

Psychological empowerment was measured using Spreitzer's (1995) 12-item scale. Separate principal component analysis with a cutoff value of 0.50 showed that these 12 empowerment items loaded satisfactorily on their respective components as specified by Spreitzer (1995), namely meaning ( $\alpha = 0.791$ ), competence ( $\alpha = 0.799$ ), autonomy ( $\alpha = 0.853$ ), and impact ( $\alpha = 0.881$ ). Sample items include: 'The work I do is very important to me' (meaning); 'I am confident about my ability to do my job' (competence); 'I have significant autonomy in determining how I do my job' (autonomy); and 'My impact on what happens in my department

is large' (impact). The Cronbach's alpha for the single-index Psychological Empowerment measure was 0.850.

#### *6.2.5.3.4 Quality of care*

Perceptions of the quality of patient care delivered were measured by using the Victorian Patient Satisfaction questionnaire (VPSM) as guidance, following Bartram et al. (2014), Bonias et al. (2010) and Leggat et al. (2010) studies. In addition, we were very careful so that the quality of care questionnaire would be in accordance with the Greek healthcare context, based on academics' and health services researchers' suggestions. Surprisingly enough, an almost identical questionnaire for measuring patients' perceptions of quality of care was administered by two of the hospitals under study which helped our selection of the appropriate items. Thus, items which were deemed as non-essential to the Greek healthcare context were removed from the VPSM scale. The removed items include: 'I try to explain extensively to patients the purposes of medicines'; 'I try to explain extensively to patients the possible side-effects of medicines'; and 'I encourage patients to participate in decisions about their care'. Principal Component Analysis with a cutoff value of 0.50 was used to indicate satisfactory loading. Our final scale consisted of 11 items, loaded into a single factor. Sample items include 'I'm courteous to patients', 'I try to communicate comprehensively with the doctors, nurses and hospital staff regarding my patients' treatment', and 'I am willing to listen to patients' health care problems'. The Cronbach's alpha for the 11-item scale was 0.914.

#### *6.2.5.4 Statistical Model*

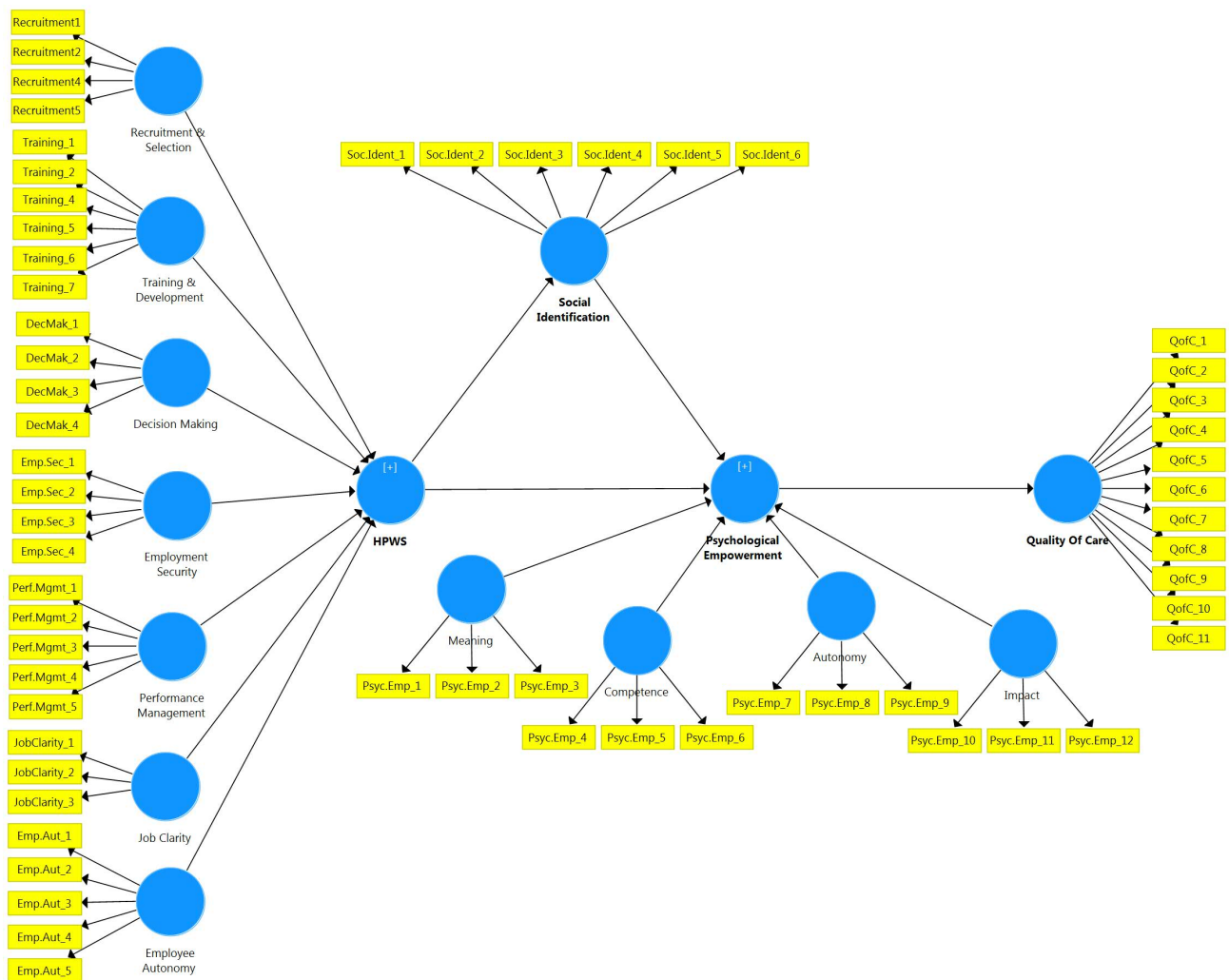
SPSS v.22 was used to conduct descriptive statistical analysis and exploratory factor analysis. To empirically test the model, we used Partial Least Squares (PLS) Structural Equation Modeling (SEM) with the help of SmartPLS 3.2 software (Ringle et al., 2014). Overall, PLS-



SEM has several advantages when compared to the covariance based structural equation modeling (SEM) techniques. For instance, it is free from distributional assumptions of normality, while it can be used to analyze data from small samples. Of particular relevance to this study, PLS-SEM incorporates both formative and reflective constructs as well as Hierarchical Component Models (HCMs). In HCMs a general construct is defined that consists of several sub-dimensions. Thus, while the more general construct becomes part of the structural model, additional information can be found on the sub-dimensions by using a second-order model. By using HCMs, we are able to reduce the number of relationships in the structural model, making the PLS path model more parsimonious and easier to grasp (Hair et al., 2014, p. 229).

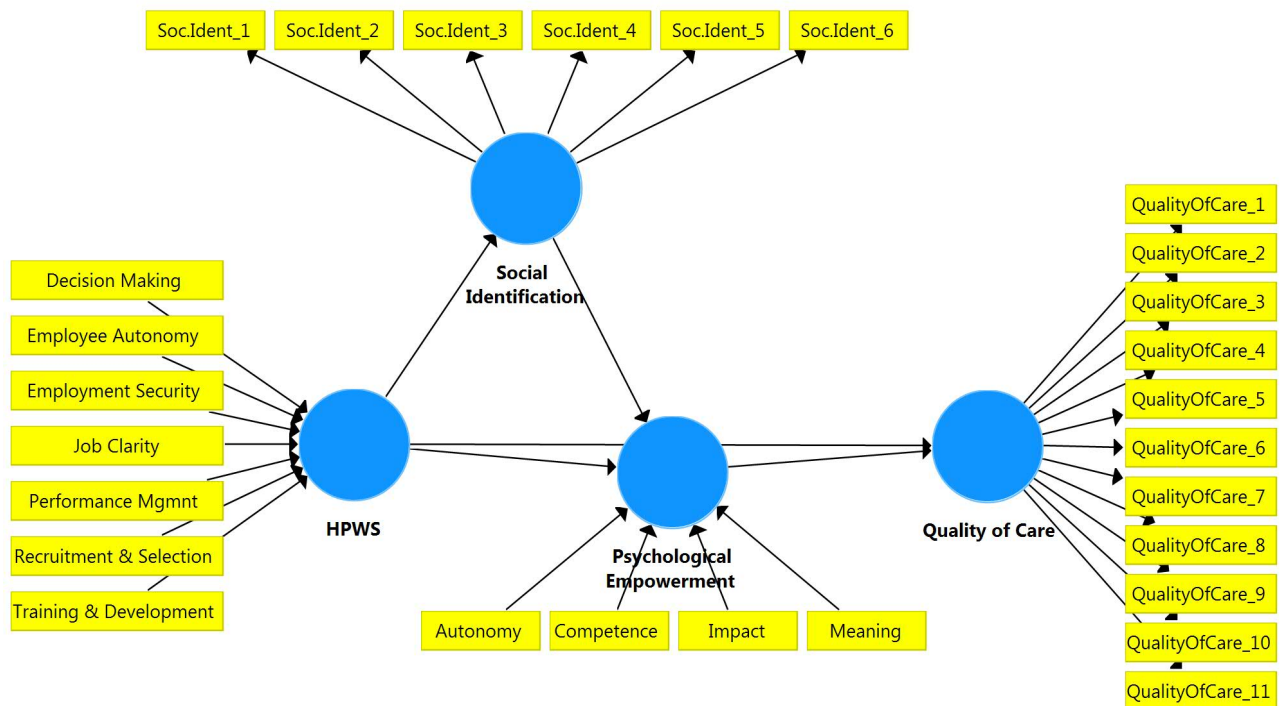
In our structural model, HPWS and Psychological Empowerment were operationalized as ‘reflective–formative’ higher-order components. Specifically, HPWS consisted of the 7 individual HR Practices. Each HR Practice was measured by its reflective indicators, while their relationship with the HPWS construct was indicated as formative. A similar procedure was followed for Psychological Empowerment. These reflective-formative HCMs and the proposed model are depicted in figure 6.4.

**Figure 6.4 The proposed model of quality of patient care**



Finally, in establishing the final HCM measurement model, we followed the ‘repeated indicators approach’ combined with the ‘two-step approach’. Additional information in performing these procedures can be found in Hair et al. (2014, pp. 230, 233) ‘Higher-Order models/hierarchical component models’ and Lowry and Gaskin (2014, pp. 133) ‘Lesson 3: Use this empirical demonstration of PLS and video supplement to see PLS in use’. The final model (two-step approach) is depicted in Figure 6.5.

**Figure 6.5 The Two-step approach model**



### 6.2.5.5 Validity and Reliability

Before running the PLS analysis, we had to configure the model's reliability and validity. Since all first-order constructs used in the model were reflective, we evaluated *individual indicator reliability*, the *composite reliability* to evaluate internal consistency, the *convergent validity* of the measures associated with each construct and their *discriminant validity* (Hair et al., 2014, p. 95). Regarding the *individual indicator reliability* for the reflective constructs, only four items (two in social identification and two in quality of care factors) were slightly below the threshold of 0.7. However, since all of the examined t-values of the outer model loadings were significant at the 0.05  $\alpha$  level, we retained them in the model. *Composite reliability*, was greater than 0.7, and thus was confirmed. In addition, the Average Variance Extracted (AVE) extracted was above the threshold of 0.5, thus confirming *convergent validity*. All measures are reported in table 6.4.

**Table 6.4 Composite reliability, Average Variance Extracted (AVE) and convergent validity**

Construct (latent variable)	Composite reliability	Loadings	T-Statistics	Average Variance Extracted (AVE)	Convergent & Discriminant Validity
Recruitment & Selection	0.864	Min: 0.724 Max: 0.837	***	0.614	Yes
Training & Development	0.898	Min: 0.725 Max: 0.837	***	0.596	Yes
Decision Making	0.861	Min: 0.712 Max: 0.882	***	0.610	Yes
Employment Security	0.880	Min: 0.748 Max: 0.847	***	0.648	Yes
Performance Mgmt	0.925	Min: 0.772 Max: 0.911	***	0.713	Yes
Job Clarity	0.928	Min: 0.871 Max: 0.920	***	0.812	Yes
Employee Autonomy	0.864	Min: 0.712 Max: 0.794	***	0.560	Yes
Meaning	0.878	Min: 0.781 Max: 0.875	***	0.706	Yes
Competence	0.891	Min: 0.845 Max: 0.865	***	0.731	Yes
Autonomy	0.911	Min: 0.845 Max: 0.896	***	0.773	Yes
Impact	0.927	Min: 0.843 Max: 0.931	***	0.808	Yes
Social Identification	0.876	Min: 0.647 Max: 0.844	***	0.543	Yes
Quality of Care	0.928	Min: 0.677 Max: 0.786	***	0.542	Yes

\*indicates significant paths: \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ , ns (not significant)

To determine the *discriminant validity* of our indicators, we used two established techniques.

First, we checked for cross-loadings. Secondly, we used the Fornell-Lacker criterion which compares the AVE values with the latent variable correlations. Since the square root of each construct's AVE was greater than its highest correlation with any other construct (table 6.5),

discriminant validity was confirmed for all sub-constructs. Finally, although these two approaches are the dominant methods for evaluating discriminant validity in variance-based structural equation modeling such as partial least squares, they do not reliably detect the lack of discriminant validity in common research situations due to their unacceptably low sensitivity (Henseler et al., 2015, p. 128). As a solution for this critical issue, Henseler et al. (2015) propose an alternative approach for discriminant validity assessment in variance-based SEM, namely the Heterotrait-Monotrait ratio of correlations (HTMT). In our model, the maximum HTMT value was below 0.85, which is the most conservative critical HTMT value. In addition, we checked the  $HTMT_{inference}$  criterion, where the upper confidence intervals were below the 1 value. Therefore, we conclude that discriminant validity has been established for our model.

Next, the validity and reliability of the formative scales (HPWS and Psychological Empowerment) was checked by following the procedures described in Petter et al. (2007). For instance, face- and content-validity of the formative construct is derived from theory, while the construct under investigation is considered abstract and complex. In addition, following Cenfetelli and Bassellier (2009), we tested the formative factors for multicollinearity by calculating the Variance Inflation Factors (VIFs) of the items in the formative construct. In our case, all of the VIFs of the indicators were below 3.3, indicating sufficient construct validity for our formative indicators.

**Table 6.5 Discriminant validity through the Fornell-Lacker criterion (Square Root of AVE on diagonal)**

	1	2	3	4	5	6	7	8	9	10	11	12	13
Autonomy (1)	<b><u>0.879</u></b>												
Competence (2)	0.425	<b><u>0.855</u></b>											
Dec. Making (3)	0.029	-0.050	<b><u>0.781</u></b>										
Employee Autonomy (4)	0.339	0.250	0.276	<b><u>0.748</u></b>									
Employment Security (5)	0.057	0.019	0.326	0.213	<b><u>0.805</u></b>								
Impact (6)	0.447	0.211	0.173	0.462	0.251	<b><u>0.899</u></b>							
Job Clarity (7)	0.247	0.081	0.373	0.236	0.072	0.207	<b><u>0.901</u></b>						
Meaning (8)	0.302	0.425	0.104	0.214	0.078	0.258	0.092	<b><u>0.840</u></b>					
Performance Mgmt (9)	0.113	-0.012	0.564	0.300	0.303	0.204	0.553	0.092	<b><u>0.844</u></b>				
Quality Of Care (10)	0.209	0.201	-0.006	0.176	0.048	0.152	0.059	0.229	-0.008	<b><u>0.736</u></b>			
Recruitment (11)	0.207	0.014	0.257	0.305	0.141	0.259	0.333	0.122	0.508	-0.038	<b><u>0.784</u></b>		
Social Identification (12)	0.247	0.155	0.143	0.321	0.089	0.366	0.244	0.302	0.338	0.157	0.362	<b><u>0.737</u></b>	
Training (13)	0.077	-0.038	0.556	0.267	0.174	0.180	0.495	0.070	0.661	-0.018	0.565	0.327	<b><u>0.772</u></b>

Finally, we evaluated the quality of the structural model by using the R-square of the dependent variable (Chin, 1998), and the Stone-Geisser Q-square test for predictive relevance (Hair et al., 2014, p. 167). In our case, although the R<sup>2</sup> value for the endogenous construct (quality of care) was not very strong (0.064), all path coefficients were substantial and significant. Last but not least, two separate analyses with 7 and 25 omission distances were undertaken (blindfolding technique in SmartPLS) to test the stability of the findings. As the values were stable for both omission distances and all of the Q-squares were greater than zero, we were confident that the model was stable and the predictive relevance requirement was satisfied. We chose not to include the goodness-of-fit (GoF) as a criterion for PLS-SEM, since it is believed that is not able to separate valid models from invalid ones, while it is not applicable to formatively measurement models (Hair et al., 2014, p. 185; Henseler and Sarstedt, 2012, p. 577).

#### 6.2.5.6 Results

To analyze the hypotheses in the structural model, we ran the full model (figure 6.5) with a bootstrapping procedure that used 500 randomly drawn samples with replacement. The algorithm converged in 10 iterations, while the model was controlled for age, gender, and occupation. Since there were no significant effects for the control variables, we excluded them from the analysis. A summary of the path coefficients and their significance levels are summarized in table 6.6.

**Table 6.6 Summary of Path Coefficients and Significance levels**

<b>Hypotheses and corresponding paths</b>	<b>Path Coefficient</b>	<b>T-Statistics</b>	<b>Hypothesis Support</b>
HPWS → Social Identification	0.415	8.117***	H1 supported
HPWS → Psychological Empowerment	0.419	6.851***	H2 supported
Psychological Empowerment → Quality of Care	0.236	3.468***	H4 supported

\*indicates significant paths: \*p<0.05, \*\*p<0.01, \*\*\*p<0.001, ns = not significant

The results (table 6.6) support hypotheses 1, 2, and 4. Thus, HPWS is positively related to social identity (H1), and psychological empowerment (H2). In addition, psychological empowerment is positively related to perceived quality of patient care (H4).

Finally, we checked the mediating role of Social Identity and Psychological Empowerment by using Baron and Kenny (1986) three-step approach adapted for PLS regression (Lowry and Gaskin 2014, p. 139). The summary of path coefficients and significance levels for the mediation hypotheses are shown in table 6.7.

**Table 6.7 Summary of Path Coefficients and Significance levels for mediation hypotheses**

<b>Mediation hypotheses and corresponding paths</b>	<b>Path Coefficient</b>	<b>T-Statistics</b>	<b>Mediation Type</b>	<b>Hypothesis Support</b>
HPWS → Psyc. Empowerment (without mediator)	0.539	12.149***	Partial	H3 supported
HPWS → Social Identity	0.415	8.117***		
Social Identity → Psyc. Empowerment	0.241	3.866***		
HPWS → Psyc. Empowerment (with mediator)	0.419	6.002***		
HPWS → Quality of Care (without med)	0.141	ns	Indirect	H5 supported
HPWS → Psychological Empowerment	0.419	6.851***		
Psychological Empowerment → Quality of Care	0.236	3.468***		
HPWS → Quality of Care (with mediator)	0.019	ns		

\*indicates significant paths: \*p<0.05, \*\*p<0.01, \*\*\*p<0.001, ns = not significant

First, the independent variable must be related to the dependent variable without the presence of the mediator. Our findings showed that HPWS had a significant effect on Psychological Empowerment ( $\beta = 12.149$ , path coefficient = 0.539,  $R^2 = 0.258$ ). Second, the independent variable must be related to the mediator, and third the mediator must be related to the dependent variable. When adding the mediator in the model, our findings showed that HPWS had a significant effect on Social Identity ( $\beta = 8.117$ , path coefficient = 0.415,  $R^2 = 0.192$ ), while Social Identity had a significant effect on Psychological Empowerment ( $\beta = 3.866$ , path coefficient = 0.241,  $R^2 = 0.282$ ). Finally (fourth step), the effect of the independent variable



(HPWS) on the dependent variable (Psychological empowerment) was lower (path coefficient = 0.419) but still significant ( $\beta = 6.002$ ) when the mediator was included in the model. Thus, it can be concluded that Social Identification partially mediates the relationship between HPWS and Psychological Empowerment. We further verified the mediator effect through the use of the Sobel test (Lowry and Gaskin, 2014, pp. 139, 140). The Sobel test produces a test statistic ( $Z$ ), along with accompanying significance levels. The calculated Sobel test statistic was  $Z = 3.691$ ,  $p < 0.05$ . Since  $Z > 1.96$ , the mediation was confirmed. Thus, hypothesis 3 was supported.

Following the same procedure we checked the mediating role of Psychological Empowerment in the relationship between HPWS and quality of care. As table 6.7 suggests, although the direct effect of HPWS to quality of care was not statistically significant, which violates the first step of Baron and Kenny (1986) three-step approach, this is not a necessary condition for mediation to exist (Hair et al., 2014, p. 223; Zhao et al., 2010). Indeed, Zhao et al. (2010, p. 200) argued that '*a significant direct path does not necessarily indicate mediation, and a non-significant direct path does not necessarily indicate lack of mediation*'. In addition, they recommend that '*to establish mediation the Baron-Kenny "three sets + Sobel" steps be replaced with the bootstrap of the indirect effect*' while '*all that matters is that the indirect effect is significant*' (Zhao et al., 2010, p. 204). Hence, and since the indirect effect was significant as table 6.7 suggests, we conclude that psychological empowerment indirectly mediates the relationship between HPWS and quality of patient care, providing support for hypothesis 5.

Before continuing to the conclusions and implications, two final points should be noted. First of all, we used Harmon's single-factor test to exclude the possibility of Common Method Variance (CMV). Thus, we chose one fixed number of factors to be extracted for all measured variables. According to the results, this factor explained only 19% of the variance

approximately. Therefore, common method variance is not likely to be an issue in our analysis. Finally, although the use of SEM-PLS is quite appropriate in our research since we included formative factors as well as hierarchical component models (HCM), we also conducted the same analysis following a CB-SEM technique (AMOS) to cross-validate our findings, by treating the HPWS and Psychological Empowerment as single-indices (e.g., Ang et al., 2013; Bartram et al., 2014; Leggat et al., 2010). The findings were almost identical, supporting Hair et al. (2014, p. 18) argument that ‘the results for CB-SEM and PLS-SEM typically do not differ much, and PLS-SEM estimates can therefore be good proxies of CB-SEM results’. However, we omit presenting the corresponding results to avoid any confusion that may arise due to the many and differently interpretable numbers.

#### 6.2.5.7 Discussion

The findings of this article indicated that HPWS has a strong effect on health-care professionals’ social identification, which in turn mediates (partially) the relationship between HPWS and psychological empowerment. These findings provide support for hypotheses 1 and 3. Hence, our research not only validates the findings of previous studies (Bartram et al., 2014; Young et al., 2010), but also provides evidence for the potential fruitfulness of the HPWS approach from a social identity perspective. Indeed, in the healthcare sector, characterized by highly complex and interdependent clinical work, social identification can be valuable as it can create unity among disparate team members and break down professional and clinical ‘silos’ (Bartram et al., 2014, p. 2404). However, one thing that should not be neglected is that, despite the benefits, social identification can have a range of consequences, since individuals who identify with a group don’t always act in accordance with the social identity based in that group membership, leading thus to lowered performance.

In addition, our study extended the Young et al. (2010) and Bartram et al. (2014) research by examining the mediating effect of psychological empowerment on the relationship between HPWS and quality of care. Indeed, our findings suggested that clinicians who feel psychologically empowered are more likely to perceive that they provide better patient care, while psychological empowerment indirectly mediates the relationship between HPWS and quality of patient care, providing support for hypotheses 2, 4, and 5 and confirming Bonias et al. (2010) findings. Overall, our findings are in accordance with past research focusing on the relationship between HPWS and psychological empowerment on the Australian healthcare sector (Bartram et al., 2014; Bonias et al., 2010; Leggat et al., 2010, 2011). Furthermore, it was also demonstrated that HPWS has no statistically significant direct effect with quality of care. Hence, our results confirm the argument of Leggat et al. (2010, p. 360) and Bartram et al. (2014, p. 2413) that ‘without the presence of psychological empowerment, HPWS has limited impact on the quality of patient care’.

Moreover, and since the majority of previous studies have not examined the individual HPWS practices effects on employee outcomes and performance but have treated HPWS as a single index, Takeuchi et al. (2009, p. 1080) argued that some sub-components of HPWS may have differential effects on mediators and dependent variables. Taking this into consideration, some HR practices might hurt the degree of social identity felt by the unit’s employees, although the overall effect can be positive on an aggregate level. For instance, Leggat et al. (2008, p. 35) reported that the healthcare organizations under study were less positive in enabling and encouraging staff to take an active role in decision-making. Hence, and following Takeuchi et al. (2009), although in our study all HR practices (sub-bundles) had a significant bivariate relationship to the HPWS construct we also suggest that special attention should be given to the individual HR practices’ effects on mediators and dependent variables by future studies.

Overall, our research adds to the broader SHRM literature, since it not only validates the significant contribution of HPWS on social identification, psychological empowerment and quality of patient care, but it also takes place in the first European Union country that has been severely affected by Europe's financial crisis since 2008. Thus, although we make no attempt to generalize our findings, it seems reasonable to argue that HPWS can be a fruitful and effective approach even in turbulent times. Last but not least, our findings might be of particular interest to health-care researchers and practitioners of other countries with similar economic traits.

## Empirical Study #3

### **Linking innovative human resource practices, employee attitudes and intention to leave in healthcare services**

This empirical study has been published in the 'Employee Relations' Journal.

Kloutsiniotis, P.V. & Mihail, D.M. (2017). Linking innovative human resource practices, employee attitudes and intention to leave in healthcare services. *Employee Relations*, 39, 1, 34-53.

### 6.2.6.1 Introduction

The present empirical study, follows the Ang et al. (2013) work and examines the effects of employees' perception of HPWS on their work engagement and job satisfaction, as well as the mediating effect of these variables on employees' affective commitment and intention of leaving their hospital. To our knowledge, there are only a few studies examining the HPWS effects on employees' well-being (e.g., Ang et al., 2013; Fan et al., 2014; Weinberg et al., 2012; Zhang et al., 2013) and intention to leave (Ang et al., 2013; Bartram et al., 2012) in the healthcare sector.

### 6.2.6.2 Theory and Conceptual Framework

#### *6.2.6.2.1 Job satisfaction*

Job satisfaction lies at the heart of the HPWS approach. Indeed, it has been argued that discretionary effort is one of the keys to understanding the links between HR practices and organizational performance (CIPD/EEF, 2003, p. 15), which depends on improvements in job satisfaction, organizational commitment, and motivation. This argument is aligned with the AMO framework (Appelbaum et al., 2000), which supports the fact that HPWS will create highly skilled, engaged and empowered workers who feel valued and enjoy higher job satisfaction. Overall, there is mounting evidence across the HRM literature supporting the positive relationship between HPWS and employee attitudes and behavior, such as job satisfaction, across different industries (e.g., Garcia – Chas et al., 2014; Macky and Boxall, 2007; Paauwe and Boselie, 2005) including the healthcare sector (e.g., Chang et al., 2009; Chuang et al., 2011; Harley et al., 2007; Weinberg et al., 2012; Young et al., 2010).

Indeed, Leggat et al. (2010) found that job satisfaction moderated the relationship between HPWS and perceived quality of care, while Ang et al. (2013) and Zhang et al. (2013) reported that HPWS can be positively translated into greater engagement and job satisfaction. Fan et al.

(2014) indicated that the adoption of HPWS would increase employees' subjective well-being, including satisfaction with their lives and their work. Hence, and following these studies, we formulate the following hypothesis.

*Hypothesis 1:* HPWS will be positively related to employees' job satisfaction.

#### *6.2.6.2.2 Affective commitment*

Organizational commitment is considered one of the most important concepts in the area of organizational behavior and human resource management (Dhar, 2015). Although previous studies have indicated that employees' perceptions of HPWS are positively related with organizational commitment (Macky and Boxall, 2007; Takeuchi et al., 2009; Van de Voorde and Beijer, 2015), it is widely accepted nowadays that organizational commitment is multidimensional in nature and consists of three separate components, namely affective, continuance and normative commitment (Meyer and Allen 1991). Among these three, affective commitment occupies a vital position since it captures the fundamental meaning of commitment, which is emotional attachment between employee and the organization. Employees reciprocate equity and balance with increased trust and a sense of responsibility that is manifested as an affective commitment toward an organization (Sharma and Dhar, 2016, p. 163). Affective commitment is defined as "the employee's emotional attachment to, identification with and involvement in the organization" (Meyer and Allen, 1991, p. 67). In other words, affectively committed employees stay in the workplace because they want to (Shipton et al., 2015).

Taking all of the above into consideration, in this study we examine the affective commitment component, for several reasons. First of all, employees' work experiences have been identified as the most influential antecedents of affective commitment by satisfying their

needs (Meyer and Allen 1991, p. 70). Hence, HRM practices that satisfy employees' needs to feel competence in the work role are expected to affect employees' level of affective commitment positively (Giannikis and Nikandrou, 2013, p. 3649; Meyer and Allen, 1991). In addition, the ability of affective commitment to predict organizational commitment has gained a sufficient amount of attention from researchers (Dhar, 2014, p. 423; Meyer et al., 2006). Indeed, previous studies indicated that in comparison to continuance and normative commitment, affective commitment correlated more significantly with work outcomes such as performance, absenteeism, quit intention, levels of stress, and organizational citizenship behavior (Meyer and Herscovitch, 2001), while another empirical study showed that affective commitment played a crucial, yet not fully understood, role in both retaining employees and promoting staff well-being (Somers, 2009). Finally, and following Shipton et al. (2015, p. 3) argument, "since affective commitment is an antecedent for both turnover and well-being, the case for understanding what factors promote high levels of staff-reported affective commitment is perhaps more compelling than ever before."

In the healthcare sector, empirical studies have associated HPWS with employees' organizational (Chuang et al., 2011; Harley et al., 2007) as well as affective commitment (Ang et al., 2013; Young et al., 2010). For instance, Weinberg et al. (2012) demonstrated the importance of HPWS as central components of a supportive work environment designed to promote broader worker engagement and organizational commitment. Hence, and taking these arguments into consideration, we formulate the following hypothesis.

*Hypothesis 2:* HPWS will be positively related to employees' affective commitment.

In addition, Williams and Hazer (1986) indicated that job satisfaction is regarded as an antecedent of affective commitment, especially when HPWS is adopted by organizations.



Indeed, HPWS engages employees through involvement in participative decision-making and extensive training, thus, influencing their affective commitment (Pfeffer, 1998). This finding was also supported by the Ang et al. (2013) study. Thus, we formulate the following hypothesis.

*Hypothesis 3:* Job satisfaction will mediate the positive relationship between HPWS and employees' affective commitment.

#### *6.2.6.2.3 Work engagement*

Engagement has been defined as “a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption” (Demerouti et al., 2010, p. 210). Previous research has demonstrated that employees who perceive higher organizational support and receive higher perceptions of procedural justice are more likely to reciprocate with greater levels of engagement (Saks, 2006). This relationship can be explained by the Social Exchange Theory (Blau, 1964). According to this theory, employers and employees develop an exchange relationship. Hence, if an organization provides substantial inducements to employees, then employees are more likely to reciprocate with positive job attitudes (Giannikis and Nikandrou, 2013, p. 3651; Zhang et al., 2013, pp. 3199-3200) and greater job satisfaction and work involvement (Ang et al., 2013, p. 3091). Following this argument, the social exchange theory could be especially crucial in the implementation of HPWS (Fan et al., 2014, p. 944), since employees may interpret HPWS as a sign that they are valued and respected by the organization. Thus, showing loyalty to the organization is one way for employees to reciprocate the positive treatment they receive from the organization (Bartram et al., 2012, p. 1575), even if their jobs are emotionally demanding. In contrast, poor HPWS implementation may be associated with employees perceiving that the gains from the employer are not proportional to

their expectations and inputs, thus leading to dissatisfaction and higher levels of disengagement from work (Ang et al., p. 3091; Zhang et al., 2013, pp. 3199-3200).

Previous research has indeed indicated a positive relationship between HPWS and employees' work engagement in the healthcare context (Ang et al., 2013; McAlearney et al., 2011). For instance, Zhang et al. (2013) demonstrated that HPWS may lead to work engagement under a social exchange relationship, while Weinberg et al. (2012) reported that a high-performance work environment (HPWE) is associated with better retention as well as with greater engagement in the care process through enhanced professional empowerment and interdisciplinary collaboration.

Hence, and based on the reported findings of the aforementioned research, we propose the following hypothesis.

*Hypothesis 4:* HPWS will be positively related to employees' engagement.

Moreover, previous research proposed that engagement leads to both individual outcomes as well as organizational-level outcomes (Kahn, 1992). Following this argument, Saks (2006, p. 607) suggested a number of reasons to expect engagement to be related to work outcomes. First of all, engagement has been found to be related to good health and positive work affect (Sonnentag, 2003), which in turn will likely result in positive work outcomes, such as greater attachment to the organization (Schaufeli and Bakker, 2004). Secondly, and following the Social Exchange Theory, individuals who continue to engage themselves do so because of the favorable reciprocal exchanges they receive. Consequently, these individuals will probably show greater trust in their employer and are more likely to report positive attitudes toward their organization. Previous empirical research has supported these relationships between engagement and work outcomes, such as organizational commitment (Saks, 2006; Schaufeli

and Bakker, 2004). To move a step further, given that the antecedent (HPWS) is expected to predict engagement and engagement to predict the outcomes (e.g., affective commitment), it is logical to expect engagement to mediate the relationship between HPWS and affective commitment. Indeed, the Maslach et al. (2001) model treated engagement as a mediating variable for the relationship between six work conditions and work outcomes such as job satisfaction and commitment, while several studies validated the mediating role of engagement (Saks, 2006; Schaufeli and Bakker, 2004; Sonnentag, 2003). Furthermore, Shantz et al. (2016) found that engagement mediated the relationship between HRM practices and quality of care and safety, while Ang et al. (2013) demonstrated that engagement mediated the relationship between HPWS and affective commitment. Taking this analysis into consideration, we propose the following hypothesis.

*Hypothesis 5:* Employees' engagement in the Greek healthcare context will mediate the relationship between HPWS and affective commitment.

#### *6.2.6.2.4 Intention to leave*

There is an extensive body of literature suggesting a negative association between HPWS and intention to leave or turnover intentions (e.g., Macky and Boxall, 2007). For instance, Huselid (1995) and Sun et al. (2007) found that HPWS reduced turnover and increased productivity of employees. The logic behind this argument is that HPWS practices, such as improving employee participation and extensive training, are often associated with humanizing work. When employees perceive that these practices are implemented, they are less likely to seek alternate employment (Ang et al., 2013, p. 3109). Once again, this negative relationship between HPWS and intention to leave can also be explained by the Social Exchange Theory (Blau, 1964) and the norm of reciprocity. As has been argued, employees form perceptions

about their organization's intentions from its HR policies and practices, which serve as the mechanism that employees use to define the psychological meaning of their work situation (Wei et al., 2010, p. 1635). HPWS, as opposed to individual HR practices, provides employees with multiple social resources, such as appreciation, prestige, growth, recognition, fairness and empowerment (Gong et al., 2010, p. 125). For instance, rigorous recruitment and selection procedures signal to employees that the organization values them highly. Performance appraisal may entail praise and provide opportunities for promotion, while empowerment in decision-making and high wages may be viewed by employees as recognition of their value to the organization. Furthermore, rigorous training represents the organization's investment in employees and signals the organization's commitment to its human resources (Takeuchi et al., 2007, p. 1071). Hence, HPWS convey messages from the organization to its employees that they are highly valued for their skills and knowledge by the organization, while the latter is willing to commit itself to employees' welfare. As a consequence, employees develop positive work-related attitudes by (and towards) their organizational environments (Wei et al., pp. 1635-1636), while, at the same time, HPWS reinforces the tone of the social-exchange relationship with employees (Gong et al., 2010, p. 125). Hence, and based on this analysis, there is an incentive for the employees to remain with the organization and perform at a high level (Takeuchi et al., 2007, p. 1071). Hence, we propose the following hypothesis.

*Hypothesis 6:* HPWS will be negatively associated with employees' intentions of leaving the hospital.

Furthermore, HPWS has been negatively related to burnout, a psychological syndrome that involves losing concern for the people with whom one is working and is commonly associated with workers in "caring" professions (Maslach, 1978). The two well-known components of

burnout are emotional exhaustion and disengagement from work (Demerouti et al., 2010). As has been argued, engaged employees are likely have a greater attachment to their organization and a lower tendency to leave their organization (Schaufeli and Bakker, 2004). Indeed, Schaufeli and Bakker (2004) showed that engagement was negatively related to turnover intention and mediated the relationship between job resources and turnover. Similarly, Saks (2006) showed that engagement mediated the relationship between antecedents (e.g., perceived organizational and supervisor support, rewards and recognition, and so on) and intention to quit. In addition, and focusing on the healthcare context, researchers have suggested a negative association between HPWS and employees' burnout (Ang et al., 2013; Bartram et al., 2012; Fan et al., 2014; Zhang et al., 2013) and, consequently, on intention to leave (Ang et al., 2013; Bartram et al., 2012). Hence, given that the antecedent (HPWS) is expected to predict engagement and engagement to predict the outcome, it is logical to expect engagement to mediate the relationship between HPWS and intention to leave.

Therefore, and following Schaufeli and Bakker (2004) and Ang et al. (2013) suggestions, we propose the following hypothesis

*Hypothesis 7:* Engagement will mediate the relationship between HPWS and intention to leave in the Greek healthcare context.

Moreover, and focusing on the relationship between HPWS and intention to leave at the employees' level, there is a growing emphasis on the question of possible mediating or moderating effects, such as job satisfaction (Garcia-Chas et al., 2014). Indeed, the negative relationship between job satisfaction and intention to leave (or turnover) has been confirmed by various researchers (e.g., Chen et al., 2011; Hausknecht et al., 2009). In addition, it has been reported that job satisfaction mediates the relationship between HPWS and intention to leave (Garcia-Chas et al., 2014), while empirical findings indicate that job satisfaction can be a

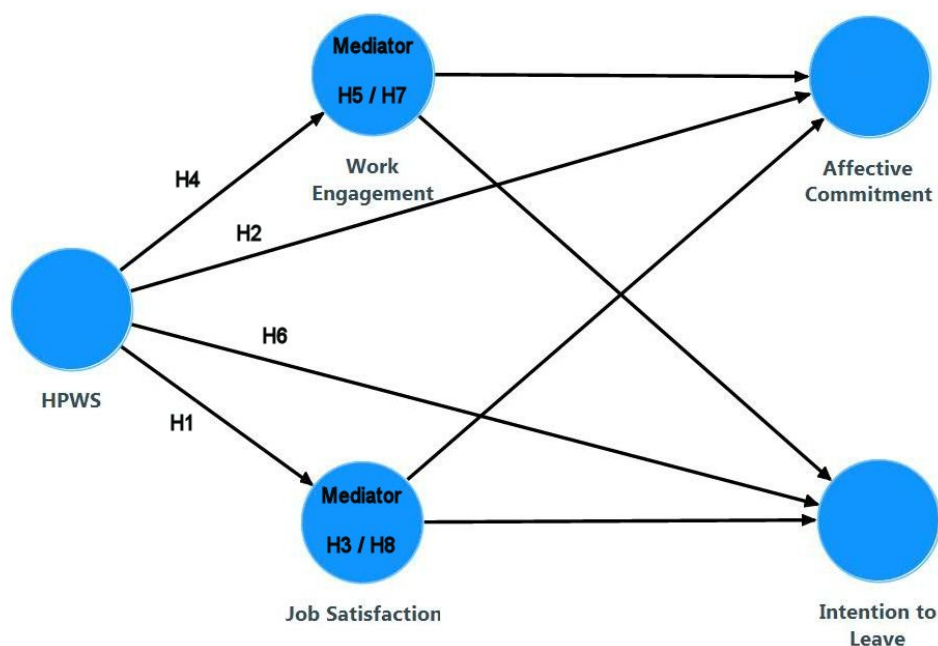
significant predictor of nursing absenteeism, turnover and intentions to quit (Lu et al., 2005). Specifically, for the healthcare sector, low job satisfaction is regarded as a major cause of turnover among health care providers (Paleologou et al., 2006). For instance, Laschinger et al. (2001) demonstrated a negative link between job satisfaction and intent to leave among nurses. McAlearney et al. (2011) reported links between HPWPs, higher satisfaction/engagement, and lower turnover, while Weinberg et al. (2012) suggested that a high-performance work environment (HPWE) is associated with better retention in terms of job satisfaction and turnover intention. Finally, Ang et al. (2013) indicated that the relationship between employee HPWS and intention to leave is mediated by job satisfaction.

Hence, it is understandable that HRM practices focused on enhancing employees' engagement are likely to influence both job satisfaction and turnover (Leggat et al., 2010). Therefore, we propose the following hypothesis.

*Hypothesis 8:* Job satisfaction will mediate the relationship between HPWS and intention to leave.

The proposed hypotheses are depicted in figure 6.6.

**Figure 6.6 The proposed model**



### 6.2.6.3 Measures

Table 6.8 summarizes the means, standard deviations, correlations and scale reliabilities (in parentheses) for the variables in the study. All survey items were measured with pre-validated multi-item scales using a five-point Likert-type scale ranging from 1 = strongly disagree, to 5 = strongly agree.

**Table 6.8 Correlations and Cronbach's  $\alpha$  coefficients**

	<i>Mean</i>	<i>SD</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
<b>1. HPWS</b>	3.05	0.65	(0.915)	0.331**	0.324**	0.451**	-0.378**
<b>2. Engagement</b>	3.45	0.76	0.331**	(0.700)	0.516**	0.222**	-0.251**
<b>3. Job Satisfaction</b>	3.94	0.72	0.324**	0.516**	(0.643)	0.441**	-0.399**
<b>4. Affective Commitment</b>	3.53	0.97	0.451**	0.222**	0.441**	(0.867)	-0.459**
<b>5. Intention to Leave</b>	2.07	0.81	-0.378**	-0.251**	-0.399**	-0.459**	(0.887)

Note:  $N=294$ . Cronbach's  $\alpha$  is in parentheses. \* $p<0.05$ ; \*\* $p<0.01$

#### 6.2.6.3.1 High-performance work systems (HPWS)

Items on HR practices were adapted from established scales or existing measures of HR systems (Ang et al., 2013; Delery and Doty, 1996; Zacharatos et al., 2005). Overall, 31 items were used, encompassing seven subscales, to create and calculate a unitary index for HPWS following a subscale aggregation approach. This index approach has been recommended and widely used in prior strategic HRM studies (e.g., Ang et al., 2013; Bartram et al., 2014; Chang, 2015; Zacharatos et al., 2005), following the argument of mainstream theorists that components of HPWS operate most effectively in bundles or mutually-reinforcing sets of practices (e.g., Delery, 1998; Huselid, 1995). In addition, a separate component analysis was conducted for each of the seven constructs in the HPWS scale, while a cutoff value of 0.50 was used to indicate satisfactory loading. The number of items that met the loading criterion and the Cronbach's alphas for the seven subscales, are as follows: Recruitment and selection (four of five items included,  $\alpha = 0.788$ ), training and development (six of seven items included,  $\alpha =$

0.863), employee autonomy (all five items included,  $\alpha = 0.808$ ), participation in decision-making (all four items included,  $\alpha = 0.786$ ), employment security (all four items included,  $\alpha = 0.830$ ), job clarity (three of four items included,  $\alpha = 0.884$ ), and performance management (all five items included,  $\alpha = 0.898$ ). The Cronbach's alpha for the single-index HPWS measure was 0.915.

#### *6.2.6.3.2 Job satisfaction*

Job satisfaction was measured with a three-item scale developed by Seashore et al. (1983). Sample items include "All in all, I am satisfied with my job" and "In general, I like working here." The Cronbach's alpha for the single index measure was 0.643.

#### *6.2.6.3.3 Affective commitment*

Affective commitment was measured with a six-item scale developed by Allen and Meyer (1990), in combination with Ang et al. (2013) the additional item on "I would recommend this health service to my family." The Cronbach's alpha for the single index measure was 0.867.

#### *6.2.6.3.4 Engagement*

Work engagement was measured based on the items measuring disengagement from work in the Oldenburg Burnout Inventory (OLBI, Demerouti et al., 2010). In detail, and to assess work engagement in the OLBI, we recoded the negatively-framed items as suggested by Demerouti et al. (2010, p. 211). The final work engagement scale consisted of five items. The Cronbach's alpha for the single index measure was 0.700.



#### *6.2.6.3.5 Intention to leave*

Intention to leave was measured with a three-item measure used by Ang et al. (2013). Sample items include “I often think of quitting this hospital” and “I often think of leaving this hospital within the next year.” The Cronbach’s alpha for the single index measure was 0.887.

#### *6.2.6.3.6 Control variables*

In our analysis, we included three control variables, namely age, gender, and education. These measures were included to reduce the chance that unmeasured variables could explain the results and to improve generalizability (Bartram et al., 2014, p. 2409).

#### *6.2.6.3.7 Common Method Variance*

To minimize the presence of Common Method Variance (CMV) we followed Podsakoff et al. (2003) procedural remedies. For instance, proximal separation was used in the questionnaire design, while the use of positively and negatively worded items was also used to reduce CMV. The questionnaire was completed by both nurses and doctors, either handwritten or electronically, and established scales were used to keep questions simple, specific, and concise, avoiding ambiguous items, which are considered as main sources of CMV. In addition, we used Harman’s single-factor test to exclude the possibility of CMV. A principal component analysis was conducted between all of the dependent and independent variables that were used in our model. We chose one fixed number of factors to be extracted for all measured variables, which, according to the results, explained only 25.6% of the variance approximately. Therefore, since this single factor did not explain the majority of the variance in the variables, common method bias is not likely to be an issue in our analysis. These techniques were also followed by researchers in previous studies with similar sample and research hypotheses (e.g., Bartram et al., 2014; Fan et al., 2014; Zhang et al., 2013).

#### 6.2.6.4 Statistical analysis and analytical procedures

In assessing our proposed model, we used Structural Equation Modelling (SEM) with the use of AMOS (version 20) statistical software. SEM has the advantages of performing a simultaneous test of the causal relationships among multiple variables in a model, while controlling of measurement error and providing information on the degree-of-fit of the tested model (Williams et al., 2009). In addition, this method of analysis is preferred over a conventional regression method due to its flexible assumptions, use of confirmatory factor analysis and better model visualization through its graphical modeling (Tabachnick and Fidell, 2007).

For measurement and baseline SEM analyses, multiple model fit indices were assessed and reported as generally suggested by SEM scholars (Hu and Bentler, 1999; Kline, 2005). For instance, the ratio of the  $\chi^2$  statistic (CMIN) to its degrees of freedom (df) provides a rough guide to the adequacy of fit of the model. A  $\chi^2/df$  ratio less than 5 is considered as good fit. In addition, we used two additional measures of fit, namely the Comparative Fit Index (CFI) and the Root Mean Square Error of Approximation (RMSEA). While the CFI ranges from 0 to 1.00, values greater than roughly 0.90 may indicate reasonably a good fit of the researcher's model (Hu and Bentler 1999; Kline, 2005). Moreover, RMSEA was used to evaluate the approximate rather than exact fit of the model. RMSEA is relatively independent of sample size, and models may be tested on the basis of confidence intervals. A point estimate of 0.06 or less is an indication of a reasonable fit (Hu and Bentler, 1999), although in general, values of RMSEA less than 0.10 are generally considered favorable (Kline, 2005).

#### 6.2.6.5 Results

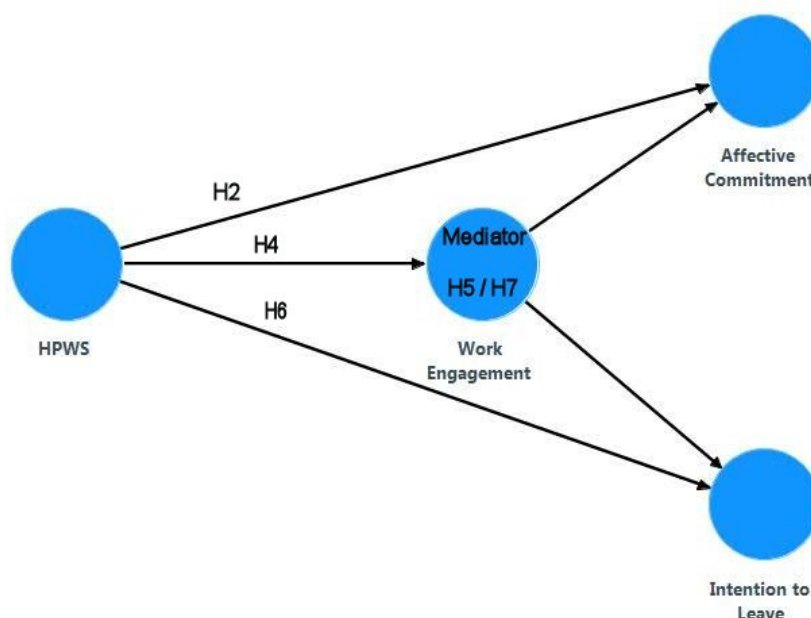
The hypothesized measurement model test showed good convergence-validity evidenced by high Cronbach alphas ( $\alpha$ ), while all of the scales used to measure the variables mentioned in

the hypotheses had satisfactory discriminant validity. In addition, the full model showed acceptable fit with the data. Specifically, the CFI (0.902) and GFI (0.906) of the original measurement model indicated above-threshold model fit, whereas the RMSEA (0.084) and  $\chi^2/df$  (3.086) were in the desired range. Since our control variables had no significant effect on our model, we removed them from the analysis to avoid unnecessarily reducing our statistical power (Becker, 2005).

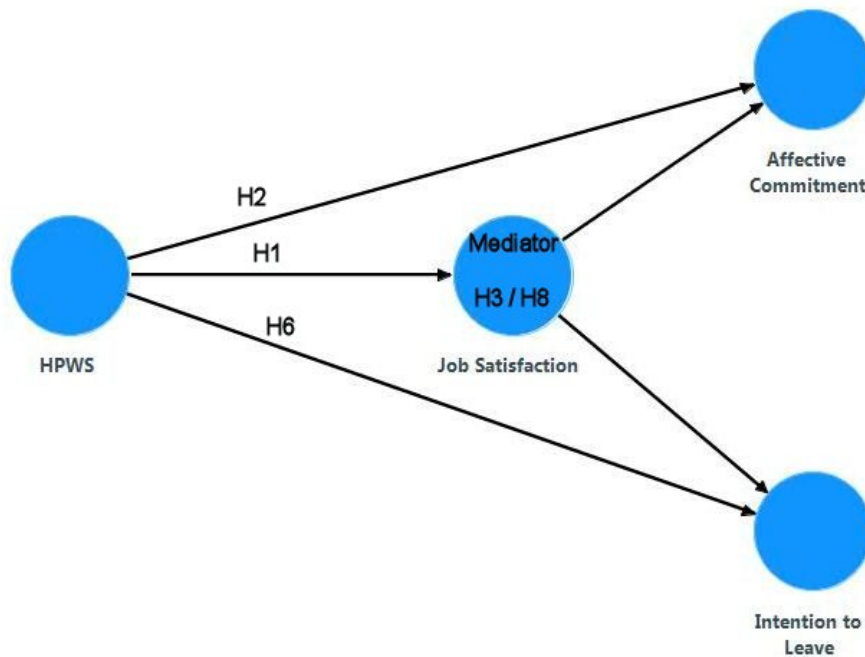
The findings showed that HPWS was positively related to employees' job satisfaction ( $\beta = 0.455, p < 0.001$ ), affective commitment ( $\beta = 0.278, p < 0.001$ ) and employees' engagement ( $\beta = 0.413, p < 0.001$ ) and negatively to their intentions of leaving the hospital ( $\beta = -0.175, p < 0.05$ ). Hence, hypotheses 1, 2, 4, and 6 are supported.

Mediation hypotheses were tested in two separate structural equation models (Figures 6.7 and 6.8), to “keep the mathematical integration process computationally feasible” (Fan et al., 2014, p. 942). Figure 6.7 presents the first model with “engagement” as a potential mediator, while figure 6.8 presents the second model with “job satisfaction” as a potential mediator respectively. Both mediated models showed satisfactory model fit (CFI = 0.902, GFI = 0.904, RMSEA = 0.097,  $\chi^2/df = 3.788$  for Figure 6.7, and CFI = 0.971, GFI = 0.955 RMSEA = 0.066,  $\chi^2/df = 2.270$  for Figure 6.8). Hence, we continued with our analysis.

**Figure 6.7 Mediated structural equation model (Work engagement as mediator)**



**Figure 6.8 Mediated structural equation model (Job satisfaction as mediator)**



In testing for the possible mediating effects, we followed the four-step procedure as suggested by Baron and Kenny (1986) combined with the Sobel test. The standardized path parameter estimates and associated p-values for both mediated models are shown in table 6.9.

**Table 6.9 Standardized path estimates and associated statistics**

<b>Model 1: Engagement as mediator</b>		<b>Model 2: Job Satisfaction as mediator</b>	
Engagement ← HPWS	0.408***	Satisfaction ← HPWS	0.512***
A. Commitment ← Engagement	0.229**	A. Commitment ← Satisfaction	0.695***
Intention To Leave ← Engagement	-0.247***	Intention to Leave ← Satisfaction	-0.658***
A. Commitment ← HPWS	0.418***	A. Commitment ← HPWS	0.146*
Intention To Leave ← HPWS	-0.298***	Intention to Leave ← HPWS	-0.062 (ns)

Note: \*\*\* $p < 0.001$ , \*\* $p < 0.01$ , \* $p < 0.05$ ; (ns)=not significant

The findings indicate that employees’ work engagement partially (and positively) mediates the relationship between HPWS and affective commitment and (negatively) between HPWS and intention to leave. Hence, hypotheses 5 and 7 are fully supported. Similarly, it was indicated that job satisfaction partially (and positively) mediates the relationship between HPWS and

affective commitment and fully (and negatively) the relationship between HPWS and intention to leave, providing support to hypotheses 3 and 8.

Moreover, we used two additional measures to verify our results. First, and based on our full model, we used the Sobel test, which produces a test statistic ( $Z$ ), along with accompanying significance levels. The calculated Sobel test statistic was  $Z > 1.96$ ,  $p < 0.05$  for both models (figures 6.7 and 6.8). Hence, mediation was confirmed. Secondly, we followed Zhao et al. (2010, p. 204) recommendations of testing the indirect effect via bootstrapping in AMOS. The standardized path parameter estimates and associated p-values, along with the indirect betas resulting from the bootstrapping procedure are shown in Table 6.10, which confirms the direction of the mediation effects.

**Table 6.10 Standardized path estimates and associated statistics**

<b>Hypothesis</b>	<b>Direct Beta w/o Med</b>	<b>Direct Beta w/Med</b>	<b>Indirect Beta</b>	<b>Mediation type observed</b>
HPWS-Engagement-Affective commitment	0.512***	0.528***	-0.141**	Partial
HPWS-Engagement-Intention to Leave	-0.399***	-0.397***	0.123**	Partial
HPWS-Job satisfaction- Affective commitment	0.512***	0.199 **	0.264**	Partial
HPWS-Affective commitment-Intention to Leave	-0.399***	-0.104 (ns)	-0.244**	Full

*Note: \*\*\* $p < 0.001$ , \*\* $p < 0.01$ , \* $p < 0.05$ ; (ns)=not significant*

Finally, when “job position” was added as a control measure in our analysis, there was a significant correlation with the “employees’ engagement” variable. Hence, we conducted a multi-group mediation analysis for both employee groups, namely nurses and doctors. The standardized path parameter estimates and associated p-values for both groups are shown in table 6.11.

**Table 6.11 Standardized path estimates and associated statistics for each group separately**

<b>Doctor's group</b>			
Direct Effects	HPWS → Job Satisfaction		0.557***
	HPWS → Affective Commitment		0.629***
	HPWS → Engagement		0.486***
	HPWS → Intention to leave		-0.481***
<b>Model 1: Engagement as mediator</b>		<b>Model 2: Job Satisfaction as mediator</b>	
Engagement ← HPWS	0.486***	Satisfaction ← HPWS	0.557***
A. Commitment ← Engagement	0.046 (ns)	A. Commitment ← Satisfaction	0.479***
Intention To Leave ← Engagement	-0.188**	Intention to Leave ← Satisfaction	-0.582***
A. Commitment ← HPWS	0.610***	A. Commitment ← HPWS	0.390***
Intention To Leave ← HPWS	-0.397***	Intention to Leave ← HPWS	-0.184**
<b>Nursing Group</b>			
Direct Effects	HPWS → Job Satisfaction		0.432***
	HPWS → Affective Commitment		0.381***
	HPWS → Engagement		0.504***
	HPWS → Intention to leave		-0.279**
<b>Model 1: Engagement as mediator</b>		<b>Model 2: Job Satisfaction as mediator</b>	
Engagement ← HPWS	0.504***	Satisfaction ← HPWS	0.432***
A. Commitment ← Engagement	0.362***	A. Commitment ← Satisfaction	0.751***
Intention To Leave ← Engagement	-0.246**	Intention to Leave ← Satisfaction	-0.663***
A. Commitment ← HPWS	0.213*	A. Commitment ← HPWS	0.058 (ns)
Intention To Leave ← HPWS	-0.165 (ns)	Intention to Leave ← HPWS	0.006 (ns)

Note: \*\*\* $p < 0.001$ , \*\* $p < 0.01$ , \* $p < 0.05$ ; (ns)=not significant

The findings indicate that all hypotheses are supported for the nursing group. Surprisingly enough, however, engagement had no mediation effect for the doctors' group on the relationship between HPWS and affective commitment. Therefore, hypothesis 5 was not supported for this group. However, one should interpret these findings with caution. Specifically, the generation of the two groups resulted in rather small samples for nurses (119) and doctors (177). Hence, the resulting small samples might misrepresent these findings regarding the differences between the two groups.

#### 6.2.6.6 Discussion and conclusions

This paper examined the effects of employees' perception of HPWS on their work engagement and job satisfaction as well as the mediating effect of these variables on employees' affective commitment and intention of leaving their hospital. The results provide some useful insights.

First of all, the findings support previous studies' conclusions in regard of the HPWS effects on employees' work-related well-being (Fan et al., 2014; Weinberg et al., 2012). Specifically, it was found that HPWS was positively related with employees' job satisfaction (Ang et al., 2013; Chuang et al., 2011; Fan et al., 2014; Harley et al., 2007; Macky and Boxall, 2007, 2008; Weinberg et al., 2012; Young et al., 2010), affective commitment (Ang et al., 2013; Macky and Boxall, 2007; Weinberg et al., 2012; Young et al., 2010), work engagement (Ang et al., 2013; McAlearney et al., 2011; Zhang et al., 2013) and negatively with employees' intentions of leaving the hospital (Ang et al., 2013; Bartram et al., 2012; Macky and Boxall, 2007), supporting previous studies findings in the healthcare context.

Secondly, this study also examined the mediating influence of employees' work engagement and job satisfaction on the relationship between HPWS, affective commitment and intention to leave. In detail, employees' engagement and job satisfaction were found to positively mediate HPWS effects on employees' affective commitment and negatively on their intention to leave. Hence, we conclude that engaged and satisfied employees may feel more committed to their hospital, while having fewer intentions of leaving their hospital. Therefore, these findings support Macky and Boxall's (2007) conclusions, that HPWS practices are often associated with humanizing work, such as improving employee participation, and extensive training. Thus, when employees perceive that these practices are implemented, they are less likely to seek alternate employment (Ang et al., 2013, p. 3109).

Furthermore, although the control variables (age, gender, education) had no significant effects on our model, when controlling for "job position," we found some significant

correlation with employees' engagement. Hence, we conducted a multi-group mediation analysis for both employee groups, namely nurses and doctors. Surprisingly enough, the findings indicated that engagement had no mediation effects on doctors' HPWS perceptions and their affective commitment, in contrast to Ang et al. (2013) study which found no mediation for the nurses' group. Specifically, in our case, the relationship between engagement and affective commitment was not significant. Thus, hypothesis 5 was not supported for the doctors' group. One possible explanation for this finding might be related to the depicted situation in the Greek healthcare industry, especially in the years following the debt crisis. Indeed, healthcare in Greece is already a saturated labor sector. The salaries and benefits are disproportional when compared to the actual amount of work, while doctors and allied health professionals are constantly seeking employment in other countries around the world, such as Germany, the UK, and Sweden. Thus, doctors' frustration with the disproportionate relationship between pay, benefits, and the amount of work they perform might cause this surprising result. Nevertheless, special attention should be given to this issue by future studies.

Moreover, one thing that should not be neglected is the fact that this study was conducted in Greece, characterized by the high unemployment levels there. This means that the employees' intentions of leaving their workplace would be extremely limited, even if they were dissatisfied with their job. In addition, as we have mentioned in the previous paragraph, the already-saturated healthcare sector forces clinicians to seek employment in other countries around the world. Thus, one should interpret the negative relationship between HPWS and employees' intentions of leaving the hospital with extreme caution. On the other hand, although generalizations of the findings should be avoided, it is important to note that this finding is supported by previous studies' conclusions (e.g., Ang et al., 2013; Bartram et al., 2012; Macky and Boxall, 2007). Hence, regardless of the depicted economic situation in Greece, HPWS might be a promising way of enhancing employees' well-being even in turbulent environments.



Finally, our findings accord with past studies' conclusions focused specifically on the healthcare sector. For instance, Ang et al. (2013) demonstrated that, for different employee groups, work engagement and job satisfaction mediate the relationships between HPWS, affective commitment, and intention to leave, respectively. In addition, our findings support the argument that HPWS can positively affect employees' work-related well-being, such as job satisfaction, affective commitment, and work engagement (Ang et al., 2013; Chuang et al., 2011; Harley et al., 2007; Harmon et al., 2003; Weinberg et al., 2012; Young et al., 2010; Zhang et al., 2013) and negatively employees' intention of leaving their hospital (Ang et al., 2013; Bartram et al., 2012).

Overall, and taking all of the above into consideration, our research adds to the broader HRM literature, since it not only follows an employee-centered study, restoring the effects of HRM on employee outcomes to a central position of HPWS studies, but it also reports on the first European Union country to have been severely affected by Europe's financial crisis since 2008. Thus, although we make no attempt to generalize our findings, it seems reasonable to argue that HPWS can be a fruitful and effective approach even in turbulent times. In addition, our findings might be of particular interest to health-care researchers and practitioners of other countries with similar economic traits.

# **Project #2**

Implementation of HPWS in the Greek banking sector

Empirical Study

**The link between perceived High Performance Work Practices,  
employee attitudes and service quality: The mediating role of  
trust**

This chapter is based on: Kloutsiniotis, P.V. and Mihail, D.M. The link between perceived High Performance Work Practices, employee attitudes and service quality: The mediating and moderating role of trust. *Manuscript under Review*

### 6.3.1 Introduction

As was mentioned in the introduction of the Sixth Part, there is a vast amount of empirical studies linking HPWS with various firm-level performance outcomes, across different industries and contexts (e.g., Messersmith and Guthrie, 2010), including the manufacturing and the service sectors. However, to our knowledge, research examining the HPWS approach in the banking sector is scarce, with few exceptions (Bartel, 2004; Liao et al., 2009; Chang, 2015; Cooke et al., 2016). Moreover, and despite the usefulness of the theories underpinning the ‘behavior motivation’ approach, the mediating role of trust between employees and managers as an antecedent process has been largely neglected, with few exceptions (e.g., Kalleberg et al., 2004; Zacharatos et al. 2005; Innocenti et al., 2011; Zhang et al., 2016).

Trust in the employer is an increasingly important element for organizations to develop and maintain themselves, as it can be a critical variable affecting the effectiveness, efficiency and performance of organizations, while it can be highly significant in the fostering of desirable work-related behaviors. The basic logic is that employees that trust the organizations they work with, stay there longer, put in more effort and work more cooperatively in contrast to those who do not share the same amount of trust. In other words, trust in an organization can provide a competitive advantage for firms (Searle et al., 2011, p. 1069). Hence, in explaining the association between HRM practices and employees’ outcomes, it would be wise to choose a mediating variable that can represent the ‘holistic view of an individual self’ (Alfes et al., 2012; Kundu and Gahlawat, 2016, p. 1688), such as trust.

Based on the previous discussion, the contribution of this study to the broader SHRM literature is threefold. First, and using data obtained from employees working in the Greek banking sector, this study examines the direct relationships between HPWS, trust, employee outcomes (measured by job satisfaction and affective commitment), and service quality. The second objective is to search for the direct effects of employee outcomes on service quality, as

well for their mediating effects in the HPWS – service quality relationship. Finally, the last objective is to examine the possible mediating role that trust might play in the relationship between HPWS and employee outcomes.

## 6.3.2 Theory and Conceptual Framework

### 6.3.2.1 *The relationship between HPWS and Trust*

Trust can be defined as ‘a psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behavior of another’ (Rousseau et al., 1998, p. 395). Since this definition regards trust as an attitude held by one individual toward another, in this paper we focus on the extent to which workers trust the management of the organization, and most importantly on the role of workers’ experiences in high performance work systems, which can be regarded as a major determinant of trust.

Indeed, HPWS has been linked to increased levels of trust between subordinates and supervisors (Zacharatos et al., 2005; Zhang et al., 2016). Specifically, a firm’s HRM practices may affect trust. For example, employment security and information sharing are likely to heighten employees’ trust in management, especially during turbulent and unstable times in the organization (Zacharatos et al., 2005, p. 84). Furthermore, previous studies have shown that trust is enhanced by managerial behaviors such as sharing and delegation of control, demonstration of concern for the employee, behavioral integrity and consistency, and communication. However, and since these characteristics comprise the basic construct of HPWS, these managerial behaviors are expected to promote trust (Kalleberg et al., 2004, p. 7). For example, trust must be present in order for self-directed teams or offline committees to be even possible (Adler, 1998). In addition, in self-directed and problem-solving teams, workers are supposed to create and share knowledge, while acting immediately on potential issues that

may arise at the time of production. Hence, it is believed that this knowledge creation capability is enhanced by the level of trust in the organization (Kalleberg et al., 2004, p. 8).

To better understand the relationship between HPWS and trust, it could be useful to refer to the social exchange (Blau, 1964) and the reciprocity theories (Gouldner, 1960), as well as to their relationship with trust. According to the social exchange theory, one contributes to the interest of the other and expects a return at a future time, while it is believed that those receiving a service will develop a sense of obligation to reciprocate with positive attitudes and behaviors. Overall, the basic argument is that the social exchange relationship is strongly contingent on the trust of one of the parties (e.g., employees) with regard to the obligations of the other party (e.g., the employer) over the relatively long term. The connection between social exchange and trust is also evident by Blau (1964, p. 98) who noted ‘since social exchange requires trusting others to reciprocate, the initial problem is to prove oneself trustworthy’. It could be said, therefore, that trust is the axis upon which social exchange revolves (Aryee et al., 2002, p. 271).

In summary, empirical studies seem to support the direct link between HPWS and trust, not only during the last decades (e.g., Appelbaum et al., 2000; Zacharatos et al., 2005; Macky and Boxall, 2007), but also more recently (e.g., Innocenti et al., 2011; Searle et al., 2011; Alfes et al., 2012; Kundu and Gahlawat, 2016; Zhang et al., 2016).

#### *6.3.2.2 Employee outcomes - Job satisfaction and affective commitment*

With regard to job satisfaction and organizational commitment, these two employee outcomes lie at the heart of the HPWS approach. Indeed, it has been argued that discretionary effort is one of the keys to understanding the links between HR practices and organizational performance (CIPD/EEF, 2003, p. 15), which depends on improvements in job satisfaction, organizational commitment, and motivation (see also Appelbaum et al., 2000, AMO framework). Overall, there is mounting evidence across the HRM literature supporting the

positive relationship between HPWS and employee attitudes and behavior, such as job satisfaction (e.g., Macky and Boxall, 2007, 2008; Messersmith et al., 2011; Zhang et al., 2016). For instance, in the healthcare sector HPWS was associated with higher employee satisfaction (e.g., Chang et al., 2009; Chuang et al., 2011; Weinberg et al., 2012), while other researchers found that job satisfaction not only moderated the relationship between HPWS and perceived quality of care (Leggat et al., 2010), but was also positively translated into greater employee engagement (Ang et al., 2013; Zhang et al., 2013), increasing employees' subjective well-being (Fan et al., 2014).

To continue with, organizational commitment is presumed as a necessary ingredient for the HPWS approach. This is evident by the fact that the term 'high commitment' is frequently used (although incorrectly) interchangeably with terms like HPWS (Farndale et al., 2011, p. 7). In general, it is widely accepted that organizational commitment is multidimensional in nature and consists of three separate components, namely affective, continuance and normative commitment (Meyer and Allen 1991). Among these three, affective commitment occupies a vital position since it captures the fundamental meaning of commitment, which is emotional attachment between employee and organization (Meyer and Allen, 1991, p. 67). As Shipton et al. (2015) argue, affectively committed employees stay in the workplace because they want to.

Based on the preceding discussion, in this study we chose to examine the affective commitment component, since employees' work experiences have been identified as the most influential antecedents of affective commitment by satisfying their needs (Meyer and Allen 1991, p. 70). Indeed, HRM practices that satisfy employees' needs to feel competence in the work role are expected to affect employees' level of affective commitment positively (Giannikis and Nikandrou, 2013, p. 3649; Meyer and Allen, 1991). Last but not least, the significance of investigating the affective commitment component of organizational commitment can also be evident by the argument of Shipton et al. (2015, p. 3). Specifically, as

they argued, ‘since affective commitment is an antecedent for both turnover and well-being, the case for understanding what factors promote high levels of staff-reported affective commitment is perhaps more compelling than ever before’. Overall, previous studies have indicated that employees’ perceptions of HPWS are positively related with organizational (e.g., Macky and Boxall, 2007; Takeuchi et al., 2009; Van de Voorde and Beijer, 2015) or affective (Young et al., 2010; Ang et al., 2013) commitment.

#### *6.3.2.3 Relationship between HPWS, employee outcomes and service quality*

Service quality is regarded as an important antecedent of business performance, especially in the service industry (Chand, 2010, p. 553), and is essential for customer satisfaction, repeat purchases, winning customer loyalty, and customer retention, while it also affects companies’ profitability (Malhotra and Mukherjee, 2004, p. 165). Furthermore, studies argue that in service organizations quality improvement must be focused on HR practices such as the selection, training, and compensation of employees (e.g., Tsaur and Lin, 2004, p. 472; Chand and Katou, 2007; Chand, 2010, p. 552), practices that are essential elements of the HPWS construct. Following this argument, it is well accepted nowadays that in a labor-intensive industry, the effective utilization of HR could provide an organization with a competitive edge. Indeed, previous studies in the HRM field suggested that in the service industry, there is a positive relationship between employee perceptions of HRM practices and customer ratings of organizational service effectiveness (Chand, 2010, p. 552). For instance, studies focusing on the hospitality industry suggested a positive relationship between HRM practices and service quality (e.g., Chand, 2010; Tsaur and Lin, 2004). Similarly, studies focusing on the healthcare sector suggested a positive connection between HPWS and quality of patient care (Bonias et al., 2010; Leggat et al., 2010; Batram et al., 2014).

Moving a step further, research has highlighted the critical role of customer-contact employees in the HPWS – service quality relationship, since their behavior has a major impact on customer perception of service quality. In other words, when employees feel well treated by management’s HR practices, they can devote their energies and resources to effectively treating clients (Tsauro and Lin, 2004, pp. 472, 473). The positive relationship between customer – oriented behavior and service quality has been supported by various studies (e.g., Parasuraman et al., 1988; Morrison, 1996; Kelley and Hoffman, 1997). For instance, Tsauro and Lin (2004) indicated that HRM practices had an indirect effect on service quality through employees’ service behavior.

In more detail, in service-based industries HR issues such as job satisfaction have been found to be antecedents of customer-oriented behavior (Hoffman and Ingram, 1992). Indeed, satisfied employees are more likely to be altruistic, helpful, and considerate and as a result to provide exceptional service that satisfies the customer, in contrast to unhappy and dissatisfied customer-contact employee (Zeithaml et al., 1990; Malhotra and Mukherjee, 2004, p. 165). Similar to job satisfaction, the level of service quality delivered can be determined by the willingness of customer-contact employees to engage in discretionary effort (Zeithaml et al., 1990). Hence, the willingness of employees to accept and support organizational goals influences the level of service quality (Boshoff and Tait, 1996), while it has been argued that an organization’s success will be jeopardized if its employees fail to accept the firm’s missions, goals and objectives (Unzicker et al., 2000) or in other words, if they are not committed to the organization. In addition, long-term customer relationships can be built with a long term committed workforce (Boshoff and Allen, 2000), and it is unlikely that loyal customers could exist without loyal employees (Malhotra and Mukherjee, 2004, p. 166). The positive relationship between affective commitment and service quality has been indicated by several studies (e.g., Boshoff and Mels, 1995; Boshoff and Tait, 1996; Zeithaml et al., 1990). For



instance, Malhotra and Mukherjee (2004) found that job satisfaction and organizational commitment of employees had a significant impact on the service quality delivered.

In addition, as we underscored in the introduction of this chapter, the significance of HPWS lies in its contribution to employees' attitudes and behaviors (Delery, 1998; Messersmith et al., 2011), which in turn can act as mediating variables in the relationship between HPWS and organizational performance (Purcell and Kinnie, 2007; Takeuchi et al., 2007, p. 1069). Hence, and since HPWS seems to have the ability to affect employees' outcomes, and employee outcomes the ability to affect service quality, employees' job satisfaction and affective commitment is expected to mediate the proposed relationship between HPWS and service quality.

Finally, and taking all of the above into consideration, the role of trust could be extremely significant in explaining the relationship between HPWS and service quality. In a review of the trust literature, Kramer (1999) reported that trust results in spontaneous sociability, which includes cooperation between individuals, acts that go beyond employee roles, work toward common goals, and information-sharing (Zacharatos et al., 2005, p. 84). Overall, employees who trust their managers are assumed to be more committed to their organizations and satisfied with their job. Hence, they will likely engage in organizational citizenship behavior and will put forth discretionary effort beyond what is required in their job description, while they will adapt more easily to organizational change. In addition, a high degree of trust could lead to more positive outcomes for individuals, such as high satisfaction and low stress, which in turn could lead to enhanced organizational performance (Kalleberg et al., 2014, pp. 1-2). Hence, trust is expected to mediate the relationship between HPWS and service quality.

### 6.3.3 Method

#### *6.3.3.1 Sample and procedure*

The data reported in this paper are drawn from a survey conducted in four banks located in the broader areas of Thessaloniki and Athens, Greece, in winter 2015. These banks were all private ones, all had similar HRM practices in place, while each bank branch occupied on average 5-8 employees. The survey questionnaire was translated into Greek from English using the back-translation procedure. The paper-based questionnaires were distributed with the help of 5 research assistants to senior managers of these bank branches, while each senior manager was asked to distribute these questionnaires to their employees with a focus on front-line staff. Following similar studies, we chose to focus on front-line employees as they deal with customers directly and have a relatively high level of performance pressure (see Cooke et al., 2016). The senior managers were informed regarding the anonymity of their employees' responses, as well as on the voluntary nature of participation.

Overall, a total of 350 questionnaires were returned, yielding a 70% response rate. Of these respondents, 44% were male and 56% female. In addition, 51% of the employees held a bachelor's degree, while 34% held postgraduate qualifications. The rest of the employees were high school graduates. Employees had worked on average for about 10 years in their current job ( $M = 10.28$ ,  $SD = 8.95$ ,  $median = 7$ ). Finally, the majority were employed in non-supervisory positions (62%).

#### *6.3.3.2 Common Method Variance*

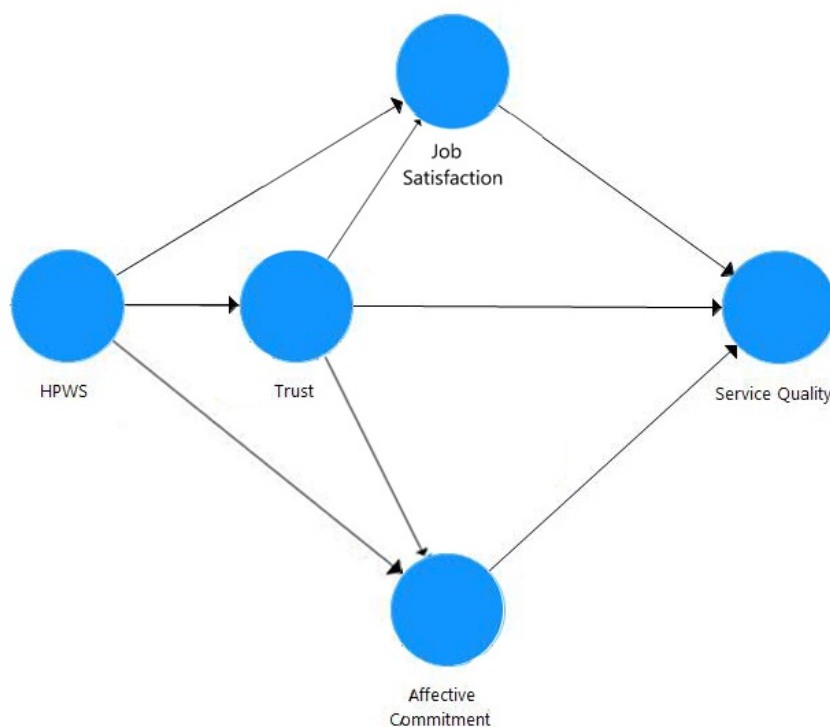
To minimize the presence of Common Method Variance (CMV) we followed Podsakoff et al. (2003) procedural remedies. In addition, we used Harman's single-factor test. Overall, since the single factor did not explain the majority of the variance in the variables (25.4% approximately), CMV is not likely to be an issue in our analysis. These techniques to minimize

the presence of CMV were also followed by researchers in previous studies (e.g., Bartram et al., 2014; Zhang et al., 2013; Topcic et al., 2016).

### 6.3.4 Statistical Model

SPSS v. 22 was used to conduct descriptive statistical analysis and exploratory factor analysis. We tested our hypotheses by means of Partial Least Squares (PLS) Structural Equation Modeling (SEM) using the SmartPLS 3.2 software (Ringle et al., 2014). One of the advantages of this method of analysis is that PLS-SEM incorporates both formative and reflective constructs, as well as Hierarchical Component Models (HCMs). By using HCMs, we are able to reduce the number of relationships in the structural model, making the PLS path model easier to grasp (Hair et al., 2014, p. 229). Overall, HPWS was operationalized as a ‘reflective-formative’ higher-order component (see Hair et al., 2014, pp. 230, 233; Lowry and Gaskin, 2014, p. 135), as depicted in Figure 6.9.

**Figure 6.9 The Two-step approach model**



#### 6.3.4.1 Validity and Reliability

Before running the PLS analysis, we had to configure the model's reliability and validity. Since all first-order constructs used in the model were reflective, we evaluated *individual indicator reliability*, the *composite reliability* to evaluate internal consistency, the *convergent validity* of the measures associated with each construct and their *discriminant validity* (Hair et al., 2014, p. 95). To determine the *discriminant validity* of our indicators, we used three established techniques. First, we checked for cross-loadings. Secondly, we used the Fornell-Lacker criterion. Finally, we used the Heterotrait-Monotrait ratio (HTMT was below 0.85) and the HTMT<sub>inference</sub> criterion (upper confidence intervals were below the 1 value), as suggested by Henseler et al. (2015). Based on these tests, we concluded that discriminant validity has been established for our model.

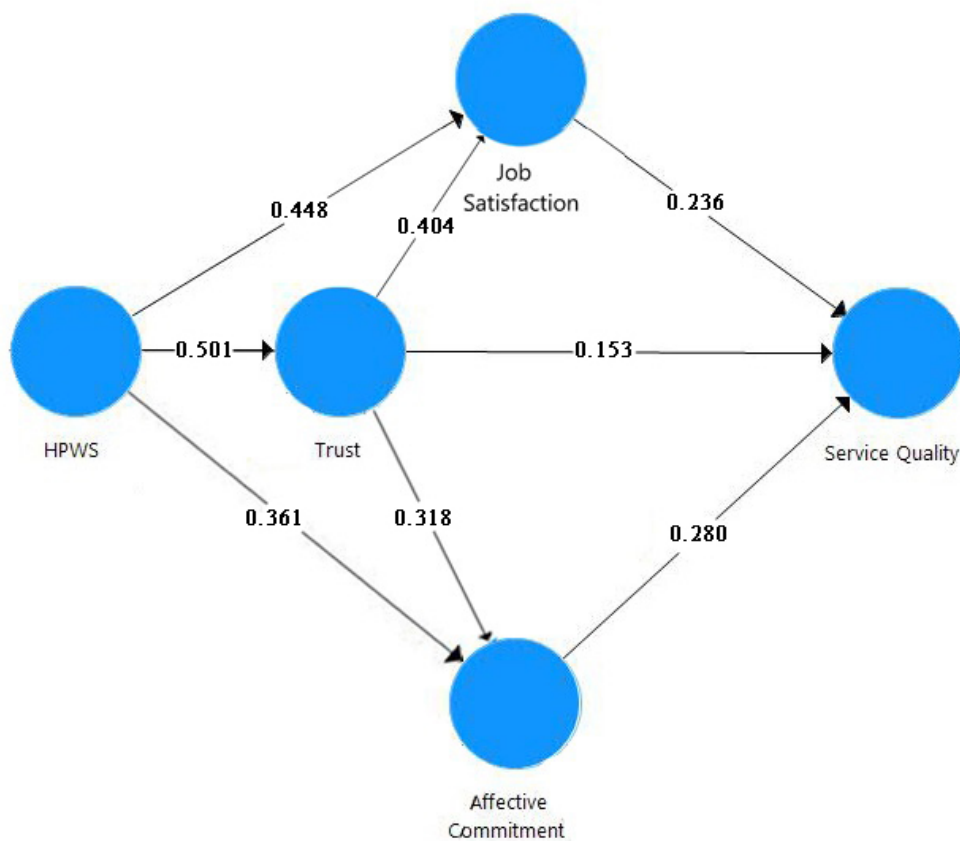
Next, the validity and reliability of the formative scale (HPWS) was checked by following the procedures described in Petter et al. (2007). In addition, following Cenfetelli and Bassellier (2009), we tested the formative factors for multi-collinearity by calculating the Variance Inflation Factors (VIFs) of the items in the formative construct. In our case, all of the VIFs of the indicators were below 3.33. Hence, the results indicate sufficient construct validity for our formative indicators.

Finally, the quality of the structural model was evaluated by using the coefficient of determination ( $R^2$  value), and the Stone-Geisser  $Q^2$  test for predictive relevance (Hair et al., 2014, p. 167). Based on these tests, we were confident that the model was stable and the predictive relevance requirement was satisfied.

### 6.3.5 Results, discussion, and conclusions

To analyze the hypotheses in the structural model, we ran the full model (figure 6.9) with a bootstrapping procedure that used 500 randomly drawn samples with replacement. The algorithm converged in 8 iterations, while the model was controlled for education, and supervisory positions. Since there were no significant effects for these control variables, we excluded them from the analysis. The path coefficients are depicted in figure 6.10. Overall, the findings provided some useful insights.

**Figure 6.10 Conceptual model and Path coefficients**



To begin with, the results showed that HPWS was positively associated with employees trust towards their managers, as well as with employees' job satisfaction, and affective commitment. Moreover, the latter were positively associated with service quality.

Next, we checked the mediating roles of ‘job satisfaction’ and ‘affective commitment’ on the relationship between HPWS and service quality. For this analysis, we followed Baron and Kenny’s (1986) three-step approach adapted for PLS regression (Lowry and Gaskin 2014, p. 139). According to Baron and Kenny (1986) three steps are required for mediation to exist. First, the independent variable must be related to the dependent variable without the presence of the mediator. Second, the independent variable must be related to the mediator, and third the mediator must be related to the dependent variable. However, other researchers suggest that the first step should not be a mandatory condition for mediation to exist (Hair et al., 2014, p. 223; Zhao et al., 2010). Indeed, Zhao et al. (2010, p. 200) argued that ‘*a significant direct path does not necessarily indicate mediation, and a non-significant direct path does not necessarily indicate lack of mediation*’. In addition, they recommend that ‘*to establish mediation the Baron-Kenny “three sets + Sobel” steps be replaced with the bootstrap of the indirect effect*’ while ‘*all that matters is that the indirect effect is significant*’ (Zhao et al., 2010, p. 204). Hence, although the direct effect between HPWS and service quality was not statistically significant, this does not indicate lack of mediation. Indeed, the indirect effects between HPWS, job satisfaction, affective commitment, and service quality were significant. Thus, job satisfaction and affective commitment indirectly mediated the relationship between HPWS and service quality.

Finally, using the same procedure as before, the findings showed that trust mediated the relationship between HPWS and service quality. Overall, it was concluded that HPWS has indeed the ability to affect service quality only through the presence of job satisfaction, affective commitment, and trust.

In summary, this research contributes to the broader HRM literature in three main ways. First of all, it is focused on the banking sector. To our knowledge, there is an extremely limited amount of studies examining the HPWS approach in the banking sector (e.g., Chang, 2015;

Cooke et al., 2016). Secondly, this study investigates the practice of HRM in the broader area of south-eastern Europe, and specifically in the Greek context, characterized by unique labor relations and institutional conditions. To our knowledge, there is a poverty of HPWS studies focusing specifically on the Greek context, with few exceptions (e.g., Vlachos 2008; Katou et al., 2014). Finally, this study could be regarded as an additional effort in unlocking the ‘black box’ between HPWS and service quality. Indeed, the analysis revealed that HPWS cannot have an effect on service quality on its own. In contrast, it seems that only satisfied and committed employees, with a high level of trust on their managers could influence the level of service quality.

## **6.4. HPWS research in the Greek manufacturing context**

### **6.4.1 Introduction**

As can be evident by the analyses and literature review of the previous chapters, the implementation of innovative systems of HRM practices constitute a ‘win-win’ approach for organizations and their employees (see Macky and Boxall, 2008). In summary, empirical research suggests a positive association between HPWS and job attitudes and outcomes (e.g., Appelbaum et al., 2000; Macky and Boxall, 2007; Takeuchi et al., 2009), such as job satisfaction (e.g. Paauwe and Boselie, 2005; Messersmith et al., 2011; Garcia-Chas et al., 2014), and affective commitment (e.g. Weinberg et al., 2012; Ang et al., 2013), which ultimately results in reduced burnout (e.g. Ang et al., 2013; Zhang et al., 2013; Bartram et al., 2014; Fan et al., 2014). Last but not least, employee outcomes seem to mediate the relationship between HPWS and organizational effectiveness (e.g. Boselie et al., 2005; Paauwe and Boselie, 2005; Sun et al., 2007). Thus, employee outcomes contribute to the unlocking of the ‘black-box’ (e.g., Kinnie et al., 2005; Messersmith et al., 2011).

Despite the latter positive effects, however, some studies provided a different picture, suggesting the HPWS might be working at the expense of employees. For instance, although Ramsay et al. (2000) confirmed the relationship between HPWS-style practices and a number of measures of workplace performance, they also indicated an association between increased job strain and work intensification. Similarly, Godard (2001) found that higher levels of HPWS adoption led to a decline in satisfaction and increased stress, whereas more recently, Wood and de Menezes (2011) showed that some HPWS practices, despite encouraging greater employee involvement, were also associated with higher degrees of employee anxiety. These findings were supported by the Wood et al. (2012) and Jensen et al. (2013) studies. As a result, and based on the controversial HPWS effects, Boxall and Macky (2014, p. 965) suggested that



terms such as HPWS should not assume that the particular configuration of management practices will be necessarily performance-enhancing. Instead, this is something that has to be demonstrated and should not be treated as self-evident.

## 6.4.2 Competing views on the HRM contribution to employee outcomes

Nowadays, there are two competing views prevailing in the HRM literature with regard to the position of employee well-being in the HRM-organizational performance relationship, namely the ‘mutual gains’ and the ‘conflicting outcomes’ perspectives (van de Voorde et al., 2012), both of which represent an updated and extended version of Peccei’s (2004) analysis, where he identified the ‘optimistic’ and ‘pessimistic’ perspectives (Peccei et al., 2013, p. 21). Specifically, the ‘mutual gains’ perspective suggests that employees and employers both benefit from HRM, and thus, HRM fosters employee well-being, which results in improved operational and financial performance. In contrast, the ‘conflicting outcomes’ perspective suggests that HRM has either no, or even a negative effect on employee well-being, and as a result, enhanced organizational performance is achieved at the cost of reduced employee well-being (see van de Voorde et al., 2012). In more detail, the main argument is that these high performing HR systems aiming at increasing organizational effectiveness can lead to work intensification, make work more challenging, and increase employee feelings of being exploited (e.g. Kroon et al., 2009, p. 510; Jensen et al., 2013). As a result, employees’ health well-being is reduced (Oppenauer and van de Voorde, 2016, p. 2).

Based on the preceding discussion, there seems to be an increasing interest towards the potential negative effects of HPWS on employee health during the past two years. For instance, Kilroy et al. (2016), based on a study performed in a Canadian general hospital showed that perceived High Involvement Work Practices (HIWPs) enable employees to obtain the

necessary resources to meet their job demands that ameliorate, in turn, their levels of burnout. van de Voorde et al. (2016), based on a sample of 311 employees nested within 46 work units of a general hospital, supported the idea that empowerment-focused HRM does translate into resources that employees can use at the task level in doing their work, and highlighted the importance of taking into account key aspects of the JDR model (job demands and resources for employees during work) as mediating mechanisms. Similarly, Heffernan and Dundon (2016), based on data collected from 187 employees in three companies in Ireland, concluded that when employees perceive that HPWS is procedurally and distributively fair, and when their line manager treats them with dignity and respect, then job satisfaction and affective commitment may increase and perceptions of work pressure may decrease. Shantz et al. (2016), based on data collected from 180 employees of a construction and consultancy organization at two time periods presented some interesting findings. First, when employees perceived that their organization's HRM practices were intended to improve their job performance, they experienced higher levels of job involvement, which led to lower levels of emotional exhaustion. Conversely, when employees believed that their organization's HRM practices were intended to reduce organizational costs, they experienced work overload, which translated into higher levels of emotional exhaustion. Topcic et al. (2016), based on an analysis of 197 employees and their work environments, and drawing on the job demands-resources model, differentiated between challenge demand HPWPs (i.e., performance evaluation systems, continuing education) and job resource HPWPs (i.e., flexible working hours, participation in decision-making). Overall, the findings indicated a positive relationship between challenge demands and individual stress among employees, whereas, contrary to the initial predictions, no empirical evidence were found indicating that the two analyzed job resources were related negatively to stress. Finally, Veld and Alfes (2017), used data from a Long-Term Care organization in the Netherlands (415 employees across 52 wards), and tested both the positive

(HRM positively affects employee well-being) and the negative perspectives (HRM negatively affects well-being) simultaneously. Overall, the study indicated that the positive and negative mechanisms had a counterbalancing effect on employee well-being.

### 6.4.3 Research goals

Overall, it seems that every model of HRM involves a blend of common and competing interests between workers and management. Hence, the simultaneous investigation of both the positive (HRM positively affects employee well-being) and the negative perspectives (HRM negatively affects well-being) might contribute to knowledge by shedding more light into the ‘black-box’ (Kilroy et al., 2016). Taking the preceding discussion into consideration, as well as the need to consider both the light (positive) and dark (negative) sides of HPWS (Boxall et al., 2016), this study contributes to the broader SHRM literature in a number of ways.

To begin with, and using data obtained from frontline employees working in a Greek manufacturing company, this study utilizes the Job Demands - Resources model (JD-R; Demerouti et al. 2001) and examines the effects of employees’ perceptions of HPWS on burnout. In more detail, and similarly to the work of van de Voorde et al. (2016), two differential processes are examined. First, by following a ‘positive perspective’, we explore how employees’ perceptions of HPWS may negatively affect burnout via increased job resources. Secondly, by following a more ‘critical perspective’, we explore how employees’ perceptions of HPWS may positively affect burnout via increased job demands.

Moreover, taking a look at the HRM literature, the vast majority of researchers calculated HPWS as a unitary index by following a subscale aggregation approach (e.g. Zacharatos et al., 2005; Chang, 2015), which represents the overall HRM system. However, Jiang et al. (2012) challenged this approach based on the argument that different types of HR practices influence important outcomes through different paths, suggesting that the components of HR systems are

not perfectly interchangeable with one another in terms of the mechanisms of their impact on the workforce (Jiang et al., 2013, p. 1449). Therefore, Jiang et al. (2012) suggested that the highly varied of HR practices should be categorized into several sub-dimensions. Indeed, decomposing the HPWS construct in different bundles of practices can be extremely important for gaining a better understanding of the linkages between HPWS and burnout (see also Oppenauer and van de Voorde, 2016). Recently, there has been an increasing interest by researchers in using the AMO framework for assessing HPWS (see Prieto and Santana, 2012; Chowhan, 2016; Cooke et al., 2016; Heffernan and Dundon, 2016; Oppenauer and van de Voorde, 2016; Raineri, 2016). Hence, and drawing on the ability-motivation-opportunity (AMO) framework (Appelbaum et al., 2000), the second aim is to decompose HPWS into three bundles of practices. Thus, although this study focuses on the overall contribution of HPWS as a system, the method of analysis followed in this study provides us with the opportunity to examine – additionally – the heterogeneous effects of bundles of HRM practices on the relationship between HPWS and employee burnout.

Finally, the present study takes place in the Greek context. Taking into consideration that the context in which organizations operate may indeed limit or enhance the HPWS usefulness and success (see Den Hartog and Verburg, 2004; Boxall and Macky, 2009), it would be interesting to examine the role of HPWS in employees' health, and especially to understand how employees respond to innovative work environments under the current economic turmoil.

## Empirical Study

### **Is it worth it? Linking perceived high-performance work systems and burnout: The mediating role of job demands and job resources**

This chapter is based on: Kloutsiniotis, P.V. and Mihail, D.M. Is it worth it? Linking perceived high-performance work systems and burnout: The mediating role of job demands and job resources. *Manuscript under Review*

#### 6.4.4.1 Theory and Conceptual Framework

##### 6.4.4.1.1 HPWS and Burnout

Burnout is a psychological syndrome that involves losing concern for the people with whom one is working and is commonly associated with workers in ‘caring’ professions (Maslach, 1982). Individuals experiencing burnout sense a decline in their feelings of job competency and successful achievement leading to tendencies to characterize themselves negatively (Zellars et al., 2000).

One of the most influential conceptualizations of the burnout constructs is the well-known Maslach Burnout Inventory (MBI; Maslach, 1982), which includes feelings of emotional exhaustion, depersonalization, and diminished feelings of personal accomplishment in working with others. However, the MBI was developed exclusively for use in human services professions, and thus, the three subscales of the MBI were applicable only to employees working with other people (Demerouti et al., 2003). Hence, several adaptations of the MBI have been proposed, such as the Oldenburg Burnout Inventory (OLBI; Demerouti et al., 2003). This new instrument includes two dimensions: *exhaustion* and *disengagement from work*. Exhaustion refers to ‘a depletion of emotional resources’ and is defined as ‘a consequence of intensive physical, affective, and cognitive strain’, whereas disengagement refers to ‘distancing oneself from one’s work and experiencing negative attitudes toward the work object, work content, or one’s work in general’ (Demerouti et al., 2010, pp. 210-211). Overall, disengagement concerns the relationship between employees and their job, particularly with respect to their engagement, identification, and willingness to continue the same occupation.

Although burnout has been linked to several negative organizational outcomes, such as chronic emotional exhaustion, cynicism, and detachment from work (Laschinger et al., 2003), leading to increased intention to leave (Bartram et al., 2012; Ang et al., 2013), there has been little research exploring how to reduce burnout through appropriate HRM strategies (Zhang et

al., 2013). To our knowledge, only a few studies in the healthcare sector focused on the relationship between HPWS and burnout. These studies suggest a negative relationship between HPWS and burnout, resulting in less employees' intentions of leaving their job (e.g. Bartram et al., 2012; Ang et al., 2013; Zhang et al., 2013; Fan et al., 2014). More recently, Kilroy et al. (2016) also showed that perceived high involvement work practices are negatively related to job demands and burnout.

#### *6.4.4.1.2 The Job demands – Resources (JD-R) model*

One central assumption of the JD-R model is the fact that although every occupation may have its own specific work characteristics associated with job stress and burnout, it is still possible to model these characteristics in two broad categories, namely job demands, and job resources (Bakker et al., 2004, p. 99; Bakker and Demerouti, 2007). According to Demerouti et al. (2001), job demands refer to those physical, psychological, social, or organizational aspects of the job that require sustained physical and/or psychological effort and are therefore associated with certain physiological and/or psychological costs (e.g., exhaustion). Job resources, on the other hand, refer to those physical, psychological, social, or organizational aspects of the job that are functional in achieving work goals; reduce job demands and the associated physiological and psychological costs; and stimulate personal growth and development.

Another proposition of the JD-R model is that two different psychological processes can play a role in the development of job strain and motivation (Bakker and Demerouti, 2007; Schaufeli et al., 2009; Schaufeli, 2013). In the first 'hair impairment' process, high job demands may exhaust employees' mental and physical resources and may therefore lead to the depletion of energy, emotional exhaustion, and burnout. In the second 'motivational' process, the presence of adequate job resources reduces job demands, and stimulates personal growth and development, which in turn may lead to stronger organizational commitment and dedication to

one's work, and thus to a lower intention to leave the organization (Bakker et al., 2003a, 2003b; Demerouti et al., 2001). Conversely, poor job resources could cause failure and frustration, reduced motivation or commitment, and as a result withdrawal from work (Bakker et al., 2003b).

#### *6.4.4.1.3 HPWS and the JD-R model*

Recently, in an effort to understand the motivational mechanisms through which HPWS influence employee health, researchers integrated key aspects of the JDR model into the HRM literature (e.g., Kilroy et al., 2016; Oppenauer and van de Voorde, 2016). These researchers are based on the arguments that high levels of HPWS provide employees with increased job demands (see Kroon et al., 2009; Jensen et al., 2013), such as increased stress and greater levels of anxiety (e.g. Godard, 2001; Wood and de Menezes, 2011; Wood et al., 2012) and work intensification (Ramsay et al., 2000) which in turn trigger emotional exhaustion in response, and consequently lead to psychological detachment from work (Maslach et al., 2001). Overall, the high level of HPWS might imply that increased effort is expected by employees, causing greater greater harm to employees' physical and psychological well-being (van de Voorde et al., 2016, p. 194).

In contrast to job demands, HRM practices comprising the HPWS construct can offer a sense of control that enables employees to adjust to their job demands (Kirloy et al., 2016, p. 6). For instance, Wood et al. (2012) underscored that 'information sharing' gives employees a greater understanding of the organizations' objectives and their role in achieving these. Therefore, uncertainty in the work environment may be reduced. Castanheira and Chambel (2010) stated that bottom-up information sharing along with training could improve workers' ability to cope with everyday tasks, since these practices provide additional skills as well as the opportunity to discuss difficulties and share solutions. In general, most of these HR practices



make employees feel more respected by the organization, and experience more control over their work (Wood and de Menezes, 2011). Overall, as Cavanaugh et al. (2000) suggested, the discretion and opportunity for creativity that HPWS entails could enable employees to reduce the job demands they experience.

#### *6.4.4.1.4 The mediating role of JD-R*

Taking into consideration the previous analyses, it can be suggested that employees' perceptions of HPWS should influence employees' attitudinal and behavioral reactions (Oppenauer and van de Voorde, 2016, p. 10). As a result, employee perceptions of job resources and demands should mediate the relationship between HRM practices encompassing the HPWS construct and employee stress and performance (Jensen et al., 2013) and burnout (e.g. Kroon et al., 2009; Castanheira and Chambel, 2010). For instance, Sun and Pan (2008) suggested that through HPWS employees will be able to obtain sufficient resources to meet their job demands, and to reduce thus, their feelings of burnout (Sun and Pan, 2008). Recent empirical research confirmed the mediating role of job demands and resources in the relationship between empowerment-focused HRM and work engagement (van de Voorde et al., 2016). Similarly, studies revealed that job demands mediated partially the relationship between high involvement work practices (HIWPs) and burnout (Kilroy et al., 2016), as well as between HIPWs and emotional exhaustion (Oppenauer and van de Voorde, 2016).

## 6.4.4.2 Methods

### *6.4.4.2.1 Sample and procedure*

The data reported in this paper are drawn from a survey conducted in one manufacturing company located in the broader areas of Athens and Thessaloniki, Greece, in winter 2016. The specific company is one of the most advanced companies globally, and occupies over 1500 employees. For the purposes of our study, data was collected from the company located in one area of Greece only. The survey questionnaire was designed by the research team and was translated into Greek from English, using the back-translation procedure, while the wording of the questionnaire was refined to ensure that the expressions were idiomatic and that the respondents understood the meaning of the relevant questions. Moreover, the HR manager of the company was personally informed about the purpose of the study. The paper-based questionnaires were handed personally to the HR manager, while it was kindly asked of him/her to distribute these questionnaires to all employees with a focus on front-line staff (see Boxall et al., 2016). Finally, all employees were informed regarding the anonymity of their responses, as well as on the voluntary nature of participation.

Overall, a total of 343 questionnaires were returned, yielding an 79.2% response rate, in a closed envelope. Of these respondents, 79% were male and 21% female. The average age of participants was 37 years (SD = 9.1) In addition, 19% of the employees held a bachelor's degree, while 8% held postgraduate qualifications. 51% of the employees were high school graduates, while the rest of them (22%) had other qualifications. Employees had worked on average for about 8.1 years in their current job (SD = 6.2). Finally, all employees had a fulltime contract.

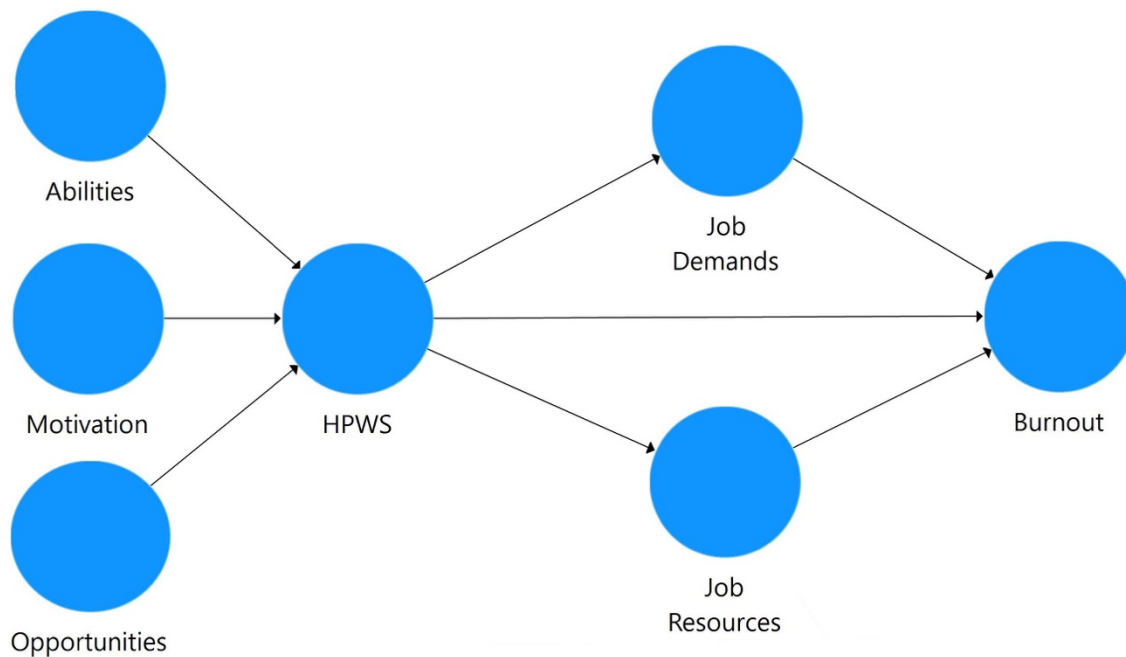
#### *6.4.4.2 Common Method Variance*

To minimize the presence of Common Method Variance (CMV) we followed Podsakoff et al. (2003) procedural remedies. In addition, we used Harman's single-factor test. Hence, a principal component analysis was conducted between all of the dependent and independent variables that were used in our model. We chose one fixed number of factors to be extracted for all measured variables, which, according to the results, explained only 23.4% of the variance approximately. Therefore, since this single factor did not explain the majority of the variance in the variables, common method bias is not likely to be an issue in our analysis.

#### *6.4.4.3 Statistical Model*

SPSS v. 22 was used to conduct descriptive statistical analysis and exploratory factor analysis. We tested our hypotheses by means of Partial Least Squares (PLS) Structural Equation Modeling (SEM) using the SmartPLS 3.2 software (Ringle et al., 2014). One of the advantages of this method of analysis compared to the covariance based structural equation modeling (SEM) techniques, is that PLS-SEM incorporates both formative and reflective constructs, as well as Hierarchical Component Models (HCMs). By using HCMs, we are able to reduce the number of relationships in the structural model, making the PLS path model more parsimonious and easier to grasp (Hair et al., 2014, p. 229). Overall, HPWS was operationalized as a 'reflective-formative' higher-order component (see Hair et al., 2014, pp. 230, 233; Lowry and Gaskin, 2014, p. 135), as depicted in Figure 6.11.

**Figure 6.11 The Two-step approach model**



#### 6.4.4.3.1 Validity and Reliability

Before running the PLS analysis, we had to configure the model's reliability and validity. Since all first-order constructs used in the model were reflective, we evaluated *individual indicator reliability*, the *composite reliability* to evaluate internal consistency, the *convergent validity* (AVE) of the measures associated with each construct and their *discriminant validity* (Hair et al., 2014, p. 95). To determine the *discriminant validity* of our indicators, we used three established techniques. First, we checked for cross-loadings. Secondly, we used the Fornell-Lacker criterion. Finally, we used the Heterotrait-Monotrait ratio (HTMT was below 0.85) and the  $HTMT_{inference}$  criterion (upper confidence intervals were below the 1 value), as suggested by Henseler et al. (2015). Therefore, we conclude that discriminant validity has been established for our model.

Next, the validity and reliability of the formative scales (HPWS) were checked by following the procedures described in Petter et al. (2007), while the formative factors were also tested for multi-collinearity by calculating the Variance Inflation Factors (VIFs) of the items in the formative construct (Cenfetelli and Bassellier, 2009). In our case, all of the VIFs of the

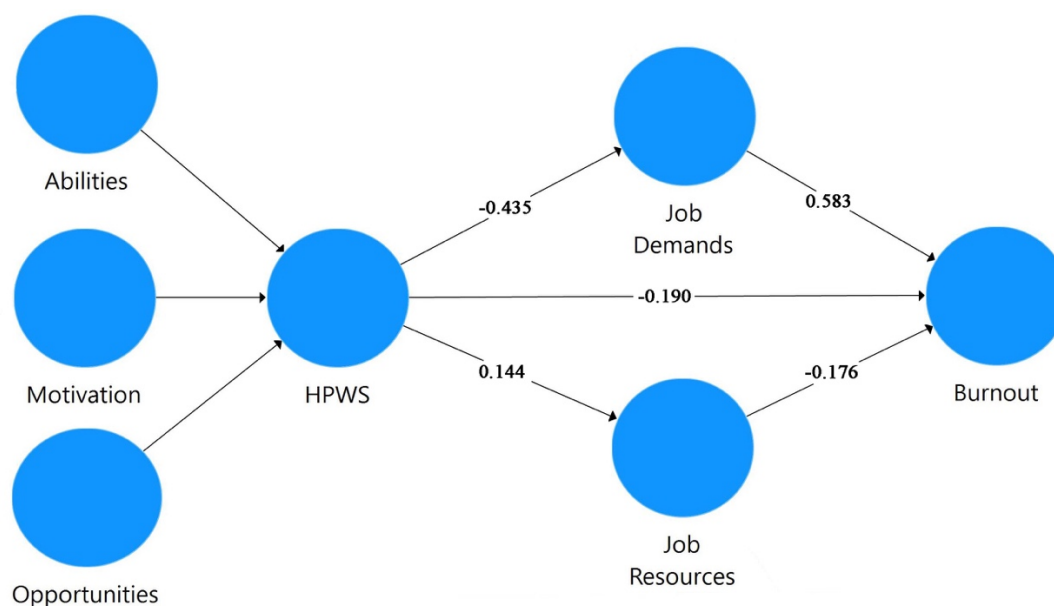
indicators were below 3.33. Hence, the results indicate sufficient construct validity for our formative indicators.

Finally, the quality of the structural model was evaluated by using the coefficient of determination ( $R^2$  value), and the Stone-Geisser  $Q^2$  test for predictive relevance (Hair et al. (2014, p. 167). Based on these tests, we were confident that the model was stable and the predictive relevance requirement was satisfied.

#### 6.4.4.4 Results, discussion, and conclusions

To analyze the hypotheses in the structural model, we ran the full model (figure 6.11) with a bootstrapping procedure that used 500 randomly drawn samples with replacement. The algorithm converged in 11 iterations, while the model was controlled for age, gender, and education. Since there were no significant effects for these control variables (and the majority of the respondents were male), we excluded them from the analysis. The path coefficients are depicted in figure 6.12. Overall, the findings provided some useful insights.

**Figure 6.12 Conceptual model and Path coefficients**



To begin with, the direct relationship between HPWS and burnout was negative and significant (path coefficient = -0.190). In addition, HPWS was negatively associated with job demands (path coefficient = -0.435) and positively with job resources (path coefficient = 0.144). Finally, both job demands and job resources had a direct and significant relationship with burnout. In more detail, job demands were positively related (path coefficient = 0.583) with burnout, while job resources negatively (path coefficient = -0.176).

Next, we checked for the mediating roles of job demands and resources on the relationship between employees' perceptions of HPWS and burnout. First of all, for this analysis, we followed Preacher and Hayes (2008) suggestions when dealing with multiple mediators. In addition, we followed Baron and Kenny's (1986) three-step approach adapted for PLS regression (Lowry and Gaskin 2014, p. 139), in combination with the 'bootstrap of the indirect effect' as recommended by Zhao et al., (2010, p. 204). Overall, the indirect effects between HPWS and burnout were significant. Thus, it was concluded that job demands and resources mediated the relationship between employees' perceptions of HPWS and burnout. However, in contrast to the initial predictions, job demands mediated negatively the proposed relationship.

Finally, the method of analysis followed in the present research provided the opportunity to examine the outer weights of each bundle of HR practices (formative indicators) on the more general construct (HPWS). Based on this latter analysis, it was found that the 'Opportunities to contribute' bundle was not loaded significantly on the HPWS system. Indeed, when the 'Opportunity' bundle was entered into the model on its own (the other two bundles were excluded), its relationship with the job demands and task-related resources was not significant. This finding is of significance importance, as it provides support to previous researchers' arguments suggesting that different sets of HR practices may impact the same outcomes in a heterogeneous way (e.g. Jiang et al., 2012, van de Voorde et al., 2012).

Overall, the present research used the JD-R framework in the HRM literature, and extended the debate on the ‘mutual gain’ and ‘conflicting outcomes’ perspectives (van de Voorde et al., 2012), regarding the positive contribution that HPWS has (or not) in the employees’ well-being. In addition, the present findings were in line with previous empirical studies’ conclusions using the JD-R model in different contexts and countries, such as Netherlands (Oppenauer and van de Voorde, 2016; van de Voorde et al., 2016) and Canada (Kilroy et al., 2016). Taking into consideration that the present study was focused on the Greek context which is still suffering from an unprecedented dept crisis, this makes the findings even more interesting and highlight the potential usefulness of HPWS. Finally, and of significant importance, by decomposing the HPWS into a sub-system of HR practices, this study showed that different conceptualizations of the HPWS approach can indeed offer different results.

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# **PART VII**

## Discussion

## **7. Discussion, Theoretical and Practical Implications**

### **7.1 Introduction**

The present thesis aims to enhance our understanding of the pathways through which innovative systems of HR practices, such as HPWS, influence employee attitudes and behaviors, and consequently employees' well-being and health. Overall, this thesis included two larger objectives. The goal of the first objective was to look inside the 'black-box', and specifically to highlight the processes through which HPWS influences health-related outcomes. Specifically, four empirical studies were developed. Three of them were based on the Greek healthcare context, while one of them was based on the Greek banking sector. For the needs of these studies, the 'behavior motivation' approach was used as a basis, which uses a psychology framework in emphasizing the antecedent processes that contribute to the development of the employee attitudes that mirror motivation, that finally lead to organizational outcomes. Hence, several theories were integrated in our models, including the social and economic exchange theories, the social identity theory, the psychological empowerment perspective, and finally the trust theory.

Moving a step further, although the implementation of HPWS seems to constitute a 'win-win' approach for organizations and their employees, recent evidence provides a different picture, suggesting that HPWS might be working at the expense of employees, increasing thus job strain and work intensification, as well as employee anxiety. As a result, the second objective of the thesis considered both the light (positive) and dark (negative) sides of HPWS, and examined the effects of employees' perceptions of HPWS on burnout based on the Greek manufacturing context.

Overall, the five empirical studies comprising the two objectives of the thesis address important challenges, which researchers and managers should keep in mind when integrating

the employee perspective into the HPWS – organizational performance linkage. The five challenges to be discussed include: 1. The relationship between HPWS and employee outcomes; 2. The social and economic exchange theories in the employee-employer relationship; 3. The social identity theory and the psychological empowerment perspective towards healthcare quality; 4. The importance of the ‘trust’ theory; 5. The job-demands resources (JD-R) model. In the next section the main findings for each challenge are presented and discussed, followed by theoretical and practical implications. Finally, the limitations and strengths of the empirical studies are presented, followed by suggestions for future research.

## 7.2 Challenges of the present thesis

### 7.2.1 Challenge #1: The relationship between HPWS and employee outcomes

To begin with, two of the healthcare studies, and the one performed in the banking sector, examined - among others - the direct relationships between HPWS and employee outcomes, measured by job satisfaction, affective commitment, and burnout. The latter consists of work disengagement from work (or the opposite, work engagement) and emotional exhaustion. Overall, all these studies came to the same conclusions regarding the aforementioned relationships, which warrant further attention.

In more detail, the findings supported previous studies’ conclusions with regard to the HPWS effects on employees’ work-related well-being (Weinberg et al., 2012; Fan et al., 2014). Specifically, the healthcare studies showed that effective HPWS operating at the level of the work group had a strong direct effect on health-care professionals’ job satisfaction (Harley et al., 2007; Chang et al., 2009; Young et al., 2010; Chuang et al., 2011; Weinberg et al., 2012; Ang et al., 2013; Zhang et al., 2013; Fan et al., 2014), and affective commitment (Ang et al., 2013; Weinberg et al., 2012; Young et al., 2010), supporting previous studies findings in the healthcare context. Similarly, the one study that focused on the banking sector confirmed these

relationships between HPWS and employee outcomes, measured by job satisfaction and affective commitment. Furthermore, the healthcare studies showed that HPWS was positively related to higher work engagement (McAlearney et al., 2011; Ang et al., 2013; Zhang et al., 2013) and negatively to employees' intentions of leaving the hospital (Macky and Boxall, 2007; Bartram et al., 2012; Ang et al., 2013), supporting previous studies findings in the healthcare context.

Moving a step further, the third healthcare study (#3) examined the mediating influence of employees' work engagement and job satisfaction on the relationship between HPWS, affective commitment and intention to leave. In detail, employees' engagement and job satisfaction were found to positively mediate HPWS effects on employees' affective commitment and negatively on their intention to leave. In addition, a negative relationship emerged in the model between employees' feelings of burnout and intentions of leaving their hospital. Hence, it can be concluded that engaged and satisfied employees may feel more committed to their hospital, while having fewer intentions of leaving their jobs. Therefore, these findings supported the Macky and Boxall (2007) study, who concluded that HPWS practices are often associated with humanizing work, such as improving employee participation, and extensive training. Thus, when employees perceive that these practices are implemented, they are less likely to seek alternate employment (Ang et al., 2013, p. 3109).

Overall, these studies offer one major important implication for managers and practitioners. Consistent with previous research, managers at all levels need to acknowledge the significance of strategic management of human resources in health care as an important tool for improving employee well-being, and for delivering high-quality patient care (Khatri et al., 2006, 2009; Leggat et al., 2010; Ang et al., 2013). On the other hand, however, study #3 showed that when 'job position' was entered as a control variable, the effects on employees' work engagement were different between nurses and doctors, thus affecting the mediating effect of work

engagement in the relationship between HPWS and affective commitment. Hence, special attention should be paid not only to the HPWS practices themselves, but also to the different employee groups in a hospital setting. Despite this limitation, however, HR managers might view the development of HPWS as a fruitful approach in improving employee outcomes and well-being (Zhang et al., 2013), which in turn influence organizational goals such as the delivery of healthcare services and the quality of patient care (Bonias et al., 2010; Leggat et al., 2010; Bartram et al., 2014).

Summarizing, in line with previous studies (e.g., Latorre et al., 2016), the preceding findings support the proposition that HR practices that imply a number of positive outcomes for employees (such as HPWS) will return in higher levels of job satisfaction. In addition, these HRM practices that satisfy employees' needs to feel competent in the work role, will motivate employees to reciprocate by displaying stronger affective commitment (Tremblay et al., 2010, pp. 412-413), reducing in turn their burnout (e.g., Bartram et al., 2012; Ang et al., 2013; Fan et al., 2014) and intention of leaving their jobs (e.g., Macky and Boxall, 2007; Garcia-Chas et al., 2014). Overall, it can be inferred that satisfied and engaged employees are more likely to be involved with their jobs (see Schaufeli and Baker, 2004), and less likely to be emotionally exhausted (Zhang et al., (2013).

### 7.2.2 Challenge #2: The social and economic exchange theories in the employee-employer relationship

The first study of the healthcare sector titled 'The effects of high-performance work systems on hospital employees' work-related well-being: Evidence from Greece' focused on the social and economic exchange theories. Specifically, this empirical study examined whether the nature of the employer and employee relationship (social or economic exchange) can moderate employees' work-related well-being, burnout and consequently their job satisfaction.

Taking into consideration that the empirical examination of the HPWS effects on employees' attitudes and behaviors through the social exchange mechanism is lacking (Takeuchi et al., 2007; Gong et al., 2010; Wei et al., 2010), this article contributed to the broader HRM literature in a number of ways. To begin with, this study showed a positive relationship between HPWS and social exchange, while in contrast, a negative relationship emerged between HPWS and economic exchange. Hence, the findings showed that HPWS has indeed the ability to reinforce the tone of the social exchange relationship (Gong et al., 2010, p. 125). Moving a step further, the HPWS effects on employee outcomes were indeed influenced by their perceived nature of the exchange relationship with their employers. Specifically, it was indicated that if employees perceive their relationship with the hospitals as a social exchange, emotional exhaustion would decrease. Hence, and following Fan et al. (2014, p. 944) argument, the specific type of employment relationship (social exchange) seems to signal to employees that they are valued and respected by their organization, which in turn motivates them through their job satisfaction and commitment to reciprocate the positive treatment they receive from their hospital (Bartram et al., 2012, p. 1575; Ang et al., 2013, p. 3090). As a result, the social exchange relationship has the ability to influence (negatively) employees' feelings of job burnout (Zhang et al., 2013, pp. 3199-2300), while it can act as an important antecedent in explaining the relationship between HPWS and employees' lower feelings of burnout.

Moving a step further, this specific study offers some theoretical and managerial implications. To begin with, the findings seem to confirm the Zhang et al. (2013, p. 3209) argument that 'it is not unconditional or inevitable that HPWS will lead to decreased emotional exhaustion or greater work engagement' (p. 3209). Indeed, it was indicated that the relationship between HPWS and employee outcomes depends on the established relationship between employees and employers. Thus, under the social exchange relationship, employees receive

positive inducements from their employers, and as a result they feel the need to reciprocate with positive job attitudes and behaviors towards that employer. In contrast, under an economic exchange relationship, employees probably perceive that the gains from the employer are not proportional to their expectations and inputs, they feel frustrated and consequently not committed or satisfied with the organizational goals (Zhang et al., 2013, pp. 3199-3200). In the current study, the effect of economic exchange on emotional exhaustion was positive. It should be noted, however, that the latter relationship was not statistically significant. However, this non-significant statistical effect does not mean that the economic exchange has not an effect on employee outcomes, or that future studies and / or managers should not take into consideration the negative effects arising from an economic exchange relationship. Specifically, a lot of factors might have contributed towards the statistically insignificant result, such as the size of the sample, or the fact that the social exchange variable explained most of the variance in the statistical analysis. Hence, future research should re-examine the mediating and moderating roles of social and economic exchange relationships to verify our findings. Moreover, and given that HPWS is not implemented in a vacuum and is influenced by many factors, the variations of HPWS in terms of motives, understanding, designs and implementation may lead to different employee perceptions and responses (Zhang et al., 2013). Hence, it is unwise to conclude that HPWS will inevitably improve the well-being of all employees and that its introduction is a one-time event.

Regarding the implications for HRM managers and practitioners, the analysis revealed that HPWS can lead to work engagement or emotional exhaustion, depending on the perceived nature of the employee – employer relationship. Therefore, organizations should carefully manage the relationship with their employees and make an effort to create a social exchange perception between employees and employers. In these organizations, employees will more likely perceive that their work expectations are fulfilled and thus, they will develop positive



job attitudes. These positive attitudes not only have an effect on work engagement and emotional exhaustion, but in turn could influence job performance (Takeuchi et al., 2007). In addition, and given that the implementations of HPWS can be influenced by many factors such as government policies, variations in HPWS across organizations cannot be avoided and will probably lead to different results. Therefore, organizations should carefully scrutinize and manage their HPWS practices. Overall, the findings of the current study in the Greek healthcare context suggest that it will be problematic for employers to simply adopt new HR practices without fully understanding their impact upon employees.

In summary, the findings confirmed that a social exchange employment relationship between employees and employers signals to employees that they are valued and respected by their organization (Fan et al., 2014, p. 944), which motivates them to reciprocate the positive treatment they receive from their hospital (Bartram et al., 2012, p. 1575; Ang et al., 2013, p. 3090), reducing thus job burnout (Zhang et al., 2013, pp. 3199-2300).

### 7.2.3 Challenge #3: The social identity theory and the psychological empowerment perspective towards healthcare quality

The second study that was focused on the healthcare context titled ‘Modeling patient care quality: an empirical high performance work system approach’ introduced the social identity theory and the psychological empowerment perspective. Specifically, this study extended the Young et al. (2010) and Bartram et al. (2014) studies and investigated the mediating effects of social identification on the relationship between HPWS and psychological empowerment, as well as the mediating role of psychological empowerment in the HPWS - quality of patient care relationship.

To begin with, this study not only validated the findings of previous studies (Young et al., 2010; Bartram et al., 2014), but also provided evidence for the potential fruitfulness of the

HPWS approach from a social identity perspective. Specifically, the findings indicated that HPWS had a strong effect on health-care professionals' social identity, which in turn mediated (partially) the relationship between HPWS and psychological empowerment. In turn, psychologically empowered clinicians were more likely to provide better patient care. This was evident by the fact that psychological empowerment indirectly mediated the relationship between HPWS and quality of patient care, confirming thus Bonias et al. (2010) findings.

Of significant importance, the findings confirmed the argument that 'without the presence of psychological empowerment, HPWS has limited impact on the quality of patient care' (Leggat et al., 2010, p. 360; Bartram et al., 2014, p. 2413). Put differently, the more empowered clinicians feel, the more likely they they will deliver quality of patient care. Indeed, it was demonstrated that HPWS had no statistically significant direct effect on quality of care, without the existence of employees' psychological empowerment. Hence, this study highlighted the fundamental role that psychological empowerment has to play in the quality of patient care delivery (Bonias et al., 2010).

This study offers some theoretical implications. First, this paper contributes to theory development by examining how HPWS impacts the quality of patient care through a social process rather than an individualistic one. Second, while clinicians in this study were asked about their identification with their team or unit, it is important to remember that in the health-care sector most clinicians will also be members of a professional association and / or a trade union. In this perspective, social identification can encourage this process by creating teams that clinicians strive to belong to (Bartram et al., 2014, p. 24014). It should be highlighted, that the role of the team leader is crucial in this process and is an important area of further study and theoretical development. Finally, it should not be neglected by managers and practitioners that despite the benefits, social identification can have a range of consequences, since individuals who identify with a group don't always act in accordance with the social identity

based in that group membership, leading thus to lowered performance (Bartram et al., 2014, pp. 2404-2405).

Moreover, this study offers some implications for managers. To begin with, it goes without saying that health-care organizations should focus on ensuring that their HRM systems, structures and processes are aimed at promoting high performing work systems rather than taking a purely functional approach to people management (Leggat et al., 2010; Bartram et al., 2014). Hence, senior health-care managers should be aware that strategic management of employees is an important tool for improving employee well-being and for delivering high-quality patient care (Khatri et al., 2009; Leggat et al. 2010). Second, in line with previous studies' arguments (e.g., Leggat et al., 2008; Stanton et al., 2010), HRM policies and practices need to be clearly understood, valued and articulated by clinician managers at the unit level if the ultimate goal is to have an impact on employee attitudes and subsequently quality of patient care. Hence, education, support and resources need to be provided to managers to enable them to display transformational leadership, encourage information sharing and decentralized decision-making to enhance the empowerment of their staff (Bartram et al., 2014). Finally, and following Stanton et al. (2010), it should not be neglected that HR managers have a critical role to play in enabling and facilitating HPWS and ensuring that these practices are understood, embedded, enacted and supported at all levels of the organizational hierarchy.

Summarizing, it can be suggested that in the healthcare sector, characterized by highly complex and interdependent clinical work, social identification can be valuable as it can create unity among disparate team members and break down professional and clinical 'silos' (Bartram et al., 2014, p. 2404). Finally, to our knowledge, research integrating the social identity theory and the psychological empowerment perspective in explaining the relationship between HPWS and quality of care is extremely limited (e.g., Bonias et al., 2010; Leggat al., 2010; Young et al., 2010; Bartram et al., 2014). On top of that, it should be noted that all of these studies were

performed in the Australian healthcare sector, as opposed to the present one which was based on the Greek healthcare sector. Yet, our findings were in accordance with past research. Although we make no attempt to generalize our findings, and taking into account that Greece has been severely affected by Europe's financial crisis since 2008, it seems reasonable to argue that HPWS can be a fruitful and effective approach even in turbulent times. As a result, these findings might be of particular interest to healthcare researchers and practitioners of other countries with similar economic traits.

#### 7.2.4 Challenge #4: The importance of the 'trust' theory

The final study that followed the 'behavior motivation' approach was focused on the Greek banking sector, and integrated the 'trust' theory. Specifically, the purpose of this study was to examine the effects of employees' perceptions of HPWS on service quality through the mediating roles of employee attitudes and trust.

To begin with, the findings showed that employees' perceptions of HPWS had a direct effect on their trust towards their managers. This finding not only confirms previous studies conclusions, suggesting that employees' trust in their organization can be enhanced through the use of certain HR practices (Kalleberg et al., 2004, p. 7), but also indicate that employees in the Greek banking sector interpret these innovative HR practices as trust-relevant signals (Searle et al., 2011, pp. 1073-1074). In addition, the analysis showed that HPWS has indeed the ability to influence service quality both directly and indirectly. Indeed, there was found a direct relationship between HPWS and service quality, as employees become aware of the organizations' intentions - through HPWS - towards service quality. Indirectly, a sequence of events takes place. First, through the HPWS implementation, the organization promotes employees' well-being. In turn, employees become more satisfied by their job and committed to the organization's aims and goals (see Tzafrir and Gur, 2007, p. 1), and as a result, they

provide high-quality services to their customers. Finally, the findings highlighted the significant role that trust has to play. Indeed, trust mediated the relationship between employees' perceptions of HPWS and service quality. In addition, although not included in the hypotheses, trust mediated the relationship between HPWS and employee attitudes.

Overall, and based on the preceding findings, this study provides several theoretical implications and implications for managers and practitioners. To begin with, the relationships between HPWS, trust, employee outcomes, and ultimately service quality might be explained by the following arguments. To begin with, it seems that trust results in cooperation between individuals, acts that go beyond employee roles, work toward common goals, and information sharing (Kramer, 1999). Hence, it is possible that employees will engage in organizational citizenship behavior and will put forth discretionary effort beyond what is required in their job description, while they will adapt more easily to organizational change. In addition, a high degree of trust probably leads to more positive outcomes for individuals, such as high satisfaction and low stress, which in turn leads to enhanced organizational performance (Kalleberg et al., 2014, pp. 1-2) and / or service quality. The significance of trust might be explained by its relationship with the social exchange theory. Indeed, when employees perceive that their managers can be trusted, they reduce their perceptions of vulnerability or threat (Macky and Boxall, 2007). As a result, employees develop a sense of obligation to reciprocate with positive attitudes and behaviors, which ultimately results in increased performance and / or service quality. Overall, there is a direct connection between trust and social exchange, since trust is the axis upon which social exchange revolves (Aryee et al., 2002, p. 271).

Moreover, the findings of this study provide important practical implications for organizations, managers, and practitioners. To begin with, managers should pay specific attention to the role of trust in their organizations. It should be noted, however, although there was a positive direct relationship between HPWS and trust, the latter cannot be considered as

a consequence of the HPWS implementation. In contrast, it relies on managers' shoulders to create a 'trusting' work environment. In turn, a work environment encompassing trust can be vital to employees' well-being and consequently, to the offering of high levels of service quality. Indeed, under these circumstances employees will more likely perceive that their work expectations are fulfilled, and as a result they will develop positive job attitudes. These positive attitudes not only have an effect on employees' job satisfaction and affective commitment, but in turn influence service quality and / or organizational performance (e.g., Purcell and Kinnie, 2007; Takeuchi et al., 2007). In addition, although not examined in this study, the significant role of trust can also be evident by the moderating role that it has to play (see Farndale et al., 2011; Alfes et al., 2012), in strengthening the relationship between HPWS and service quality. Last but not least, managers should also be aware of the negative side of the norm of reciprocity, which includes the expectation that acts perceived as distrustful by employees will jeopardize their positive attitude towards the organization. Hence, when employees feel that they cannot rely upon the behavior of management, they may feel more vulnerable, and thus, HRM practices will not be able to enhance employees' attitudes and behaviors towards the company (Innocenti et al., 2011 p. 305). Finally, this study revealed the vital significance of employees' well-being. Indeed, the findings indicated that satisfied and committed employees produced higher service quality. This finding was expected, as the positive employees' behaviors that are generated, along with their willingness to accept and support organizational goals, have the ability to influence the level of their productivity (see Boshoff and Tait, 1996; Purcell and Kinnie, 2007; Takeuchi et al., 2007).

In summary, this study highlighted the significant role that employee outcomes and trust have to play in the HPWS – service quality relationship, and contributes to the HRM literature as previous research examining the role of trust as an antecedent variable in the HPWS research is lacking. Of the few studies that exist, however, some of them examined additionally the

moderating role of trust in the HPWS – employee outcomes relationship (e.g., Innocenti et al., 2011; Farndale et al., 2011; Alfes et al., 2012). Taking into consideration that the moderating role of trust was not examined in the present study, further research towards this path could provide some valuable insights.

#### 7.2.5 Challenge #5: The job-demands resources (JD-R) model

The final empirical study, entitled ‘Is it worth it? Linking perceived high-performance work systems and burnout: The mediating role of job demands and job resources’ focused on the Greek manufacturing sector. Specifically, this study utilized the Job Demands - Resources model (JD-R; Demerouti et al. 2001) and examined the effects of employees’ perceptions of HPWS on burnout. In detail, two differential processes were examined. First, by following a ‘positive perspective’, this study explored how employees’ perceptions of HPWS may negatively affect burnout via increased job resources. Secondly, by following a more ‘critical perspective’, this study investigated how employees’ perceptions of HPWS may positively affect burnout via increased job demands. Finally, and drawing on the ability-motivation-opportunity (AMO) framework (Appelbaum et al., 2000), the second aim was to decompose HPWS into three bundles of practices. Thus, although this study focused on the overall contribution of HPWS as a system, the method of analysis followed in this study provided with the opportunity to examine – additionally – the heterogeneous effects of bundles of HRM practices on the relationship between HPWS and employee burnout.

To begin with, this study showed a direct and negative relationship between HPWS and burnout, supporting previous studies’ conclusions regarding the potential of HPWS in reducing burnout (e.g., Bartram et al., 2012; Ang et al., 2013; Zhang et al., 2013; Fan et al., 2014; Kilroy et al., 2016).

Moreover, this study rejected the ‘critical exploitation hypothesis’ (HPWS at the expense of employees) and supported the ‘optimistic perspective’. Indeed, this study showed that employees’ perceptions of HPWS were negatively associated with job demands and positively with job resources. Hence, this study indicated that HPWS can benefit employees, as these HR practices can be translated into job resources, thus helping employees accomplish their work (see Kroon et al., 2009; Oppenauer and van de Voorde, 2016; van de Voorde et al., 2016).

Furthermore, the findings showed that job demands were positively related to burnout, whereas job resources were negatively related to burnout. Therefore, akin to Schaufeli’s (2013, p. 17) argument, it seems that in the specific manufacturing company, resources have indeed the ability to energize employees and foster their engagement. In contrast, high job demands operate conversely and lead to employees’ exhaustion, and eventually to burnout.

Last but not least, in line with the ‘positive perspective’, the study showed a positive relationship between employees’ perceived HPWS and job resources, which in turn reduced employees’ feelings of burnout. In contrast, the findings did not support the ‘critical perspective’. In particular, even though job demands mediated the proposed relationship, this did not happen in the initially proposed direction. Indeed, HPWS was negatively related to job demands, which in turn was positively related to employees’ feelings of burnout.

Overall, the study offers some theoretical and practical implications for managers and practitioners. To begin with, of the three bundles of practices comprising the HPWS construct, the ‘Opportunities’ bundle was not loaded significantly on the HPWS system, while the relationships between the ‘Opportunity’ bundle and the job demands and resources were not significant. This finding is of significant importance, as it provides support to previous researchers’ arguments suggesting that different sets of HR practices may impact the same outcomes in a heterogeneous way (e.g., Jiang et al., 2012; van de Voorde et al., 2012). Thus, in accordance with Oppenauer and van de Voorde’s (2016, p. 3) argument, examining the



HPWS construct in different bundles can be extremely significant for gaining a better understanding of the linkage between HPWS and burnout. Furthermore, to our knowledge, most of the previous studies examining the HPWS-burnout relationship are focused on the healthcare sector. However, this study moves a step further and focuses on the Greek manufacturing sector, where it demonstrates that burnout can also be reduced in a different work context, as long as a specific combination of HRM practices is used.

Moreover, the findings provide some practical implications for managers and practitioners. Overall, the findings suggested that HPWS has the ability to reduce employees' burnout through two pathways: first, by reducing job demands, and secondly by enhancing job resources. Especially when organizations provide employees with adequate task-related resources, this practice can be translated into reduced emotional exhaustion as well as reduced feelings of disengagement from work. On the other hand, if the HPWS is taken out of the equation, the positive and significant relationship between job demands and burnout should be underscored and not underestimated. Indeed, although in the present study HPWS was negatively related to job demands, the latter showed a positive (and significant) relationship with burnout. Therefore, it seems that job demands are present, and probably in hibernation. In the case that management does not pay the required attention to the appropriate use of HPWS, the relationship between HPWS and job demands could easily become positive, with devastating consequences for the employees, and the organization at large. Finally, in accordance with this line of reasoning, management should be aware that HPWS is not necessarily a 'win-win' project for employees and employers. Indeed, it has been demonstrated that some HR practices are positively associated with stress levels among employees, a fact which is of vital importance for companies (see Topcic et al., 2016). To conclude, although the findings seem to support the 'mutual gains' perspective of HPWS, the 'conflicting outcomes' perspective should not be neglected (see van de Voorde et al., 2012), which supports the fact

that HPWS can be viewed as a “wolf in sheep’s clothing” (Legge, 1995) and could lead, through increased job demands, to work intensification.

Summarizing, the present research uses the JD-R framework in the HRM literature, and extends the debate on the ‘mutual gain’ and ‘conflicting outcomes’ perspectives (van de Voorde et al., 2012), regarding the contribution that HPWS makes to the employees’ well-being. In addition, the present findings are in line with previous empirical studies’ conclusions using the JD-R model in different contexts and countries, such as the Netherlands (Oppenauer and van de Voorde, 2016; van de Voorde et al., 2016) and Canada (Kilroy et al., 2016). Hence, the fact that the present study focuses on the Greek context – which is still suffering from an unprecedented debt crisis – makes the findings even more interesting and highlights the potential usefulness of HPWS. Finally, and of significant importance, by dividing the HPWS into a sub-system of HR practices, this study shows that different conceptualizations of the HPWS approach can indeed offer different results.

### 7.3 Limitations and Strengths

In this study, there are some limitations. These limitations concern four different aspects. The first limitation concerns the nature of the study (cross sectional) and its impact on the arising issues of common method variance (CMV) and reverse causality. The second limitation concerns the data collection, and specifically the existing diverse sets of HR practices towards different employee groups, as well as the differences in data collection between managers and employees. The third limitation concerns the Greek context in which all studies were performed which limits the generalizability of the findings. Finally, the last limitation concerns the specific HRM practices used forming the HPWS construct, as well as the differences between the ‘systems’ and the ‘bundling’ approaches.

The next section discusses all four limitations in detail. In most of the cases, each limitation is accompanied with the remedies that were applied in an effort to resolve these issues. It should be noted that in some cases, the described limitations constitute the strengths of the studies.

### 7.3.1 The nature of the study

To begin with, the first issue concerns the cross-sectional nature of the studies. Overall, two kind of studies can be distinguished, the cross-sectional and the longitudinal studies. In cross-sectional studies both the independent and dependent variables are measured on one occasion only (whether concurrent or not). In contrast, longitudinal studies involve the measurement of both the independent and dependent variables on at least two occasions. Although longitudinal studies are preferred, their main drawback concern the amount of time needed to perform, as well as the costs associated with their implementation (Wall and Wood, 2005). On the other hand, even though cross-sectional studies have the benefit of establishing a relation between two variables, two significant issues emerge, namely the common method variance (CMV) and the issue of reverse causality.

#### 7.3.1.1 *Common method variance (CMV)*

Common-method variance (CMV) refers to the spurious variance that is attributable to the measurement method rather than to the constructs the measures are assumed to represent. In detail, method biases are a problem because they are one of the main sources of measurement error. Measurement error threatens the validity of the conclusions about the relationships between measures and is widely recognized to have both a random and a systematic component. Although both types of measurement error are problematic, systematic measurement error is a particularly serious problem because it provides an alternative explanation for the observed relationships between measures of different constructs that is

independent of the one hypothesized (Podsakoff et al., 2003, p. 879). For example, an electronic survey method might influence results differently for those who might be unfamiliar with an electronic survey interface, as compared to those who might be familiar. Overall, most researchers try to avoid CMV by following the procedural remedies as described by Podsakoff et al. (2003, pp. 878 - 888), such as to obtain measures of the predictor and criterion variables from different sources, to separate the measurement of the predictor and criterion variables, to protect respondents' anonymity and to reduce evaluation apprehension (e.g., assuring respondents that there are no right or wrong answers), to counterbalance the order of the measurement of the predictor and criterion variables, and to improve scale items through the careful construction of the items themselves (e.g., keeping questions simple, specific, and concise, while avoiding complicated syntax). In addition, the Harman's single-factor test is arguably the most widely known approach for assessing CMV in a single-method research design (Podsakoff et al. 2003). According to this method, CMV is assumed to exist if a single factor emerges from unrotated factor solutions, or in the case that a first factor explains the majority of the variance in the variables (Podsakoff and Organ 1986, p. 536).

At this point, it should be noted that some scholars (e.g., Malhotra et al., 2006; Spector 2006) assert that the significance of CMV might have been exaggerated since it does not change the relational patterns among variables. Nevertheless, and since self-report measures were the main source of data in all of the empirical studies performed in the thesis, CMV cannot be ruled out completely (Podsakoff et al., 2012). Hence, and based on the preceding discussion, in all studies presented in the previous chapters we employed several strategies for addressing issues related to CMV. To begin with, we followed the procedural remedies as proposed by Podsakoff et al. (2003). Specifically, the introduction letter and questionnaire instruction clearly stated that the survey was completely anonymous and confidential; established scales were used to keep questions simple, specific and concise, avoiding ambiguous items, vague and unfamiliar

concepts; and proximal separation was used in the questionnaire design. In addition, the theoretically associated variables, such as HPWS and employee well-being, were separated by demographic and other unrelated variables, while the use of positive and negative wording was balanced. Beyond these procedural remedies, as is described in the methodology section of our studies, post-hoc statistical tests, such as the Harman's single factor analysis, were employed. According to the results, the single factor did not explain the majority of the variance in any of the five studies. It should be noted, however, although we tested for CMV (through the preceding tests) and found none, there is the potential that CMV did influence the results, since self-report measures were used for the needs of our study. Thus, awareness of the CMV issue remains necessary in interpreting the findings. Hence, as has been suggested, future studies could avoid this potential problem by separating the measurement of the predictor and outcome variables, by collecting data from multiple sources, and by introducing a time lag (longitudinal studies) between the measurement of the predictor and criterion variables (Podsakoff et al. 2003, 2012).

#### *7.3.1.2 Issue of reverse – causality*

Moving a step further, another significant problem that is highly influenced by the cross-sectional nature of the study, concerns the issue of reverse causality (see Paauwe and Boselie, 2005; Takeuchi et al., 2007, 2009). Overall, reverse causality implies that relationships among the constructs in a given study might be recursive (Bartram et al., 2014, p. 14). For instance, while it is believed that HR practices are driving firm performance, it cannot be ruled out that the opposite is not actually the case (e.g., Wright et al., 2003, p. 21; Guest, 2011, p. 9). The issue of reverse causality can be well understood by the following analysis.

In general, as organizational performance increases, organizational slack typically grows. Consequently, previous financial performance determines the level of slack resources that an

organization can invest in social domains. Although slack resources can remain unabsorbed as retained earnings, they can also be absorbed by increasing investments, enabling organizations to invest in HPWS (Shin and Konrad, 2014). Taking this into consideration, it is possible that establishment performance influences the level of HPWS implementation in that establishment (reverse causality), or that past performance influences the level of HPWS in place, which, in turn, might affect current establishment performance (Takeuchi et al., 2007). In addition, high firm performance outcomes (high profits, market growth) usually translate into organizational health, which might have a positive effect on employee satisfaction and commitment, and thus onto employment security (Paauwe and Boselie, 2005). Taking into consideration that performance outcomes seem to determine the continuity, expansion or reconsideration of HPWS, the possibility of reverse causality has to be taken seriously into account not only to generate a realistic estimate of the size of the HPWS effect on performance but also to explain why the diffusion of HPWS is still limited despite academic assertions of effectiveness (Shin and Konrad, 2014). Hence, a longitudinal study would be preferable not only to eliminate CMV that was examined earlier, but to also uncover the dynamic influence of HPWS on overall performance (Takeuchi et al., 2007) and to limit inferences about causality (Bartram et al., 2014, p. 2414). Indeed, longitudinal studies are in a better position to make causal statements and provide a stronger test of the hypothesized relationships.

### 7.3.2 Data collection

Having presented the potential issues that may arise due to the cross-sectional nature of our studies, the next limitation refers to the data collection. The data collection limitation concerns two specific issues, namely the diverse sets of HR practices towards different employee groups, and the differences in data collection between managers and employees.

### *7.3.2.1 Diverse sets of HR practices towards different employee groups*

To begin with, and regarding the healthcare studies, we measured employees' (nurses and doctors) perceptions regarding their experiences on the implemented HPWS practices. However, in large and complex organizations, such as hospitals, there are usually different employee groups characterized by their own discrete priorities and needs. For example, Garman et al. (2011, p. 210) argued that staff employment arrangements within health care can be much more heterogeneous than that in other industries and may include temporary professional staff (e.g., residents, emergency room physicians, and nurses), part-time staff (including employment across multiple organizations), contractual agreements, and even co-ownership. As a result, each team of workers in the various departments may be managed through diverse sets of HR policies and practices (Kinnie et al., 2005; Paauwe and Boselie, 2005; Guest, 2011), and consequently, organizations may adopt different HPWS practices towards different employee groups (Zhang et al., 2013, p. 3199). For instance, and specifically for the first and third studies of the healthcare project, the findings differed between the two occupational groups, namely doctors and nurses. These differences between the two occupational groups confirm the argument that hospital employees cannot be considered a homogenous group of workers, and underscore the importance of analyzing and comparing discrete employee groups separately (Ang et al., 2013, p. 3088). Moreover, as Bonias et al. (2010) noted, patient care does not fall strictly into the domain of healthcare clinicians but also within the domain and concern of all hospital employees. Indeed, all hospital workers including environmental services, catering, clerical services and administrative services play a crucial role in the quality of patient care. Hence, healthcare organizations should be able to develop and communicate the pivotal role of all staff in the patient care chain. Overall, it can be concluded that the adoption of a multi-level approach that uses multiple raters of HRM practices to elucidate the perspectives employees and the roles they play in the use of HRM is

required (Ang et al., 2013, p. 3089), since the effective management of diverse occupational groups within a hospital setting is one of the principal challenges that the healthcare sector is facing (Ang et al., 2013, p. 3090).

#### *7.3.2.2 Differences in data collection between managers and employees*

To continue with, organizations are multi-level systems. For this reason, researchers call for multi-level theory development to examine the complex relationships between people, process, and performance (Ang et al., 2013, p. 3089; Cooke et al., 2016, p. 15). For instance, managers in healthcare organizations have a vital role to play, as they should focus on ensuring that the HRM strategy, policy, and processes support their implementation at the line-manager level (Bonias et al., 2010; Stanton et al., 2010). In turn, clinical and nurse unit managers have a critical role to play in enhancing the empowerment and job satisfaction of their staff, through the enactment of the HRM policies and practices (Leggat et al., 2010). Hence, HRM policies and practices need to be clearly understood, valued, and articulated by the nurse unit manager in order to impact employee attitudes and subsequently perceptions of quality of patient care (Leggat et al., 2008). In general, without reinforcement at the nursing (and doctors) unit level, the goals of HPWS cannot be achieved (Patrick and Lashinger, 2006).

Overall, although the inability to focus on HR and unit level managers in all empirical studies in the thesis is acknowledged, the reliance on data based on employees' perceptions can be justified. Indeed, only until recently studies started moving away from single source survey respondents - often the HR manager - and focusing on employee attitudes and perceptions (Bonias et al., 2010; Guest, 2011). Specifically, previous empirical research has typically adopted a managerial perspective to ask managers' opinions of the use of HR systems in organizations and implicitly assumed that what was reported by managers would be consistent with employees' perceptions (Jiang et al., 2013). Interestingly, recent research



challenged this managerial perspective and showed that employees may have different experiences of HR systems from what is reported by their managers (Liao et al., 2009; Lv and Xu, 2016, p. 12). Indeed, there is an increasing view that employees are the best source of information about the implementation of HR practices, since HR managers - particularly those at senior levels - are often not in a position to know what is happening on the ground (Wright and Boswell, 2002). In more detail, it has been argued that employees' perceptions of HR practices exert most influence not only on how they feel and behave at work (Alfes et al., 2012), but also on their skills and affective states (Nishii et al., 2008), not to mention that employees' themselves are the best judges of their own well-being (Zhang et al., 2013). Moreover, employees' attitudes have been seen as drivers of discretionary behavior, while it is only through employees that organizational objectives - such as high performance, involvement, cost reduction, safety and customer service - will be enacted (Bonias et al., 2010, p. 322). Hence, it was argued that most of the psychological processes involved in HRM need to be assessed by employees themselves, whereas managerial informants and / or archival sources could come strongly into play where performance outcomes are included as dependent variables (Boxall et al., 2016, p. 108). In summary, considering the fact that employee attitudes and behaviors are generated on the basis of their perception and that the strength of the attitudinal and behavioral links to HRM practices is only appropriately assessed by workers (Bowen and Ostroff, 2004), academics have argued that research on HRM should be employee centered rather than policy focused and should refer to the employees' reactions to HR practices as experienced by them (Kinnie et al., 2005; Guest, 2011; Boxall, 2012; Lee et al., 2015; Latorre et al., 2016; Lv and Xu, 2016).

### 7.3.3 The Greek context

Overall, all studies were conducted in the Greek context, using data from front-line employees. In light of this fact, although the findings are consistent with most of the international literature examining the impact of HPWS on employee outcomes (e.g., Paauwe and Boselie, 2005; Macky and Boxall, 2007; van de Voorde et al., 2016), the generalizability of the present study's findings might be limited to Greek healthcare organizations, banking and manufacturing companies that incorporate similar HR management practices (see Boxall and Macky, 2009; Raineri, 2016, p. 24). Indeed, one significant issue prohibiting generalizations of the empirical studies' findings concerns the existing differences between different contexts and countries. As noted by Brewster et al. (2008), employment systems and structures and, hence, HRM, vary from country to country. Indeed, the context in which organizations operate may limit or enhance the HPWS usefulness due to differences in cultural and institutional factors, that are considered country contingent, and which shape employment relationships. Therefore, practices which seem to be appropriate in one culture may be less appropriate in another (den Hartog and Verburg, 2004; Boxall and Macky, 2009). As a result, generalizations of the present studies' findings should be avoided.

On the other hand, having acknowledged the potential arising issue of focusing on the Greek context, this limitation might also constitute the strength of these empirical studies. Indeed, these studies not only follow an employee-centered approach, restoring the effects of HRM on employee outcomes to a central position of HPWS studies, but they also take place in the first European Union country that has been severely affected by Europe's financial crisis since 2008. Following Takeuchi et al. (2007, p. 1080), and given that the theoretical underpinning of the present studies was derived from theories of advanced economies (e.g., USA / UK), the Greek sample may be considered a strength of this study since it illustrates theoretically-derived relationships in a non-US/UK context.

### 7.3.4 The HPWS construct - ‘Systems’ vs ‘bundling’ approaches

Overall, one major drawback regarding the HPWS approach concerns the little agreement as to the exact ‘best’ practices that constitute a HPWS (Delery, 1998, p. 296; Boxall, 2012), despite the fact that some researchers tried to overcome this issue. For instance, Appelbaum et al. (2000) proposed the AMO framework. Similarly, Lepak et al. (2006) summarized the HRM practices used in previous empirical studies into three groups of activities, namely employee skills, motivation and empowerment. Nevertheless, there is still no specific list of HR practices forming the HPWS construct.

Taking the preceding discussion into consideration, for the healthcare studies we employed the following strategy. First, we considered the HR practices confirmed by Zacharatos et al. (2005) as representative of HPWS, while in addition we followed some of the most significant studies in the healthcare industry examining the HPWS approach (Ang et al., 2013; Bonias et al., 2010; Leggat et al., 2010, 2011; Bartram et al., 2012, 2014; Zhang et al., 2013). Hence, based on the literature review, we concluded that the HPWS construct should include the following HR practices, namely recruitment and selection; training and development; participation in decision making; employment security; performance management; job clarity; and employee autonomy. However, although these practices were presented to academic and health services researchers who confirmed their validity as well as their application to the Greek healthcare system, we cannot be entirely sure whether some crucial HR practices were actually omitted from the HPWS construct, or whether some of these practices were not entirely covered by the healthcare organizations that participated in the survey. This limitation leads to the second part of this issue, namely the ‘systems’ versus ‘bundling’ approaches.

According to the HRM literature, the vast majority of researchers calculate HPWS as a unitary index by following a subscale aggregation approach (e.g., Zacharatos et al., 2005; Chang, 2015), which represents the overall HRM system. However, Jiang et al. (2012)

challenged this approach based on the argument that different types of HR practices influence important outcomes through different paths, suggesting that the components of HR systems are not perfectly interchangeable with one another in terms of the mechanisms of their impact on the workforce (Jiang et al., 2013, p. 1449). Therefore, Jiang et al. (2012) suggested that the highly varied HR practices should be categorized into several sub-dimensions. Taking these comments into consideration, in the last empirical study that was focused on the Greek manufacturing sector, HPWS was decomposed HPWS into three bundles of practices (see the AMO framework; Appelbaum et al., 2000). Of particular importance, the findings showed that the ‘Opportunities to contribute’ bundle was not loaded significantly on the HPWS system. Hence, this finding provided support to previous researchers’ arguments suggesting that different sets of HR practices may impact the same outcomes in a heterogeneous way (e.g., Jiang et al., 2012, van de Voorde et al., 2012).

Overall, it can be concluded that two significant issues emerge for future research. The first issue concerns the actual HRM practices that comprise the HPWS construct. The second issue concerns the formulation of the HPWS construct in different bundles, and suggests that decomposing HPWS into bundles of practices can be extremely significant for gaining a better understanding of the linkage between HPWS and employee outcomes (Oppenauer and van de Voorde, 2016, p. 3).

## 7.4 Future research

The findings, implications and limitations of the six studies forming this thesis provide further suggestions that need to be addressed in future research.

To begin with, although we tested for Common Method Variance (CMV) and found none, there is the potential that CMV did influence the results, since self-report measures were used for the needs of our study. Thus, a longitudinal study would be preferable to eliminate CMV,

to rule out the issue of reverse causality and to uncover the dynamic influence of HPWS. Indeed, longitudinal studies are in a better position to make causal statements and provide a stronger test of the hypothesized relationships.

Secondly, as was noted in the limitations section of the thesis, future studies should examine the HPWS construct in different bundles of practices (see the AMO framework developed by Appelbaum et al., 2000) as opposed to calculating a unitary index by following a subscale aggregation approach. Indeed, as Jiang et al. (2013, p. 1449) suggested, different types of HR practices might influence important outcomes through different paths, indicating that the components of HR systems are not perfectly interchangeable with one another in terms of the mechanisms of their impact on the workforce (Jiang et al., 2013, p. 1449). It should be noted that during the past two years, researchers showed indeed an increasing tendency of decomposing the HPWS practices into different dimensions by following the ‘bundling’ approach (e.g., Andreeva and Sergeeva, 2016; Chowhan, 2016; Oppenauer and van de Voorde, 2016; Raineri, 2016; Shin et al., 2016).

Moreover, future studies should not only consider the light (positive) but also the dark (negative) sides of HPWS. Indeed, future studies should place greater emphasis in examining both the benefits of HRM on employee health, namely the ‘mutual gains’ perspective, as well as the negative (if any) effects on employees’ health, namely the ‘conflicting outcomes’ perspective (Oppenauer and van de Voorde, 2016, p. 2; van de Voorde et al., 2012; van de Voorde et al., 2016, p. 192). Hence, by following the Boxall and Makcy (2014, p. 965) argument, the positive contribution of HPWS should be demonstrated and not be treated as self-evident.

In line with the previous suggestion for future research, in our research in the Greek manufacturing sector a narrow set of job demands and resources was used, compared to previous works following the JD-R framework (e.g., Bakker and Demerouti, 2007; Schaufeli

et al., 2009). For instance, Kilroy et al. (2016) examined the effects of role conflict, role overload, and role ambiguity job demands on employees' burnout. In addition, Topcic et al. (2016) divided the HR practices into job demands and job resources and examined their direct relationship to stress, with very interesting findings and conclusions. Thus, further research in this direction is needed.

Finally, and following Guest (2017, p. 34), HRM research and policy needs to give greater priority to promoting employee well-being. Taking this argument into consideration, Guest (2017) proposed an alternative approach to HRM, that gives priority to practices designed to enhance well-being and a positive employment relationship, proposing the both elements are essential. In turn, the model suggests that high well-being and a strong employment relationship will be associated with positive organizational outcomes. This approach therefore offers a different path to 'mutual gains' in a way that is not so readily apparent in the existing performance-oriented models of HRM. Hence, future research needs to establish the extent to which this is invariably the case and whether, for example, a positive employment relationship is better considered as an antecedent or a correlate of well-being.

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# Appendix I

Empirical study #1 - The effects of high-performance work systems on hospital employees' work-related well-being: Evidence from Greece

**TABLE I.1** HPWS Measures

Dimension	Item	Loading
<b>Recruitment &amp; Selection</b> Zacharatos et al. (2005)	The recruitment and selection processes in this hospital are impartial	0.845
	Favoritism is not evident in any of the recruitment decisions made in this hospital	0.753
	All appointments in this hospital are based on merit (i.e. the best person for the job is selected regardless of his/her personal characteristics)	0.824
	Only the best people are hired to work in this hospital	0.709
	<b>Cronbachs' alpha</b>	<b>0.789</b>
<b>Training &amp; Development</b> Zacharatos et al. (2005)	Providing employees with training beyond that mandated by government regulations is a priority in this hospital	0.736
	This hospital subsidizes, assists or reimburses employees for training or courses taken outside of the workplace	0.746
	Employees of this hospital are encouraged to extend their abilities	0.773
	Employees are provided with training opportunities enabling them to extend their range of skills and abilities	0.813
	Employees in this hospital get the opportunity to discuss their training and development requirements with their immediate manager	0.727
	This hospital is committed to the training and development of its employees	0.831
<b>Cronbachs' alpha</b>	<b>0.863</b>	
<b>Participation in Decision Making</b> Delery and Doty (1996)	Employees in this job are allowed to make many decisions	0.730
	Employees in this job are often asked by their supervisor to participate in decisions	0.815
	Employees are provided with the opportunity to suggest improvements in the way things are done	0.863
	Superiors keep open communications with employees in this hospital	0.712
	<b>Cronbachs' alpha</b>	<b>0.787</b>
<b>Employment Security</b> Delery and Doty (1996)	Employees can expect to stay in the hospital for as long as they wish	0.784
	It is very difficult to dismiss an employee in this hospital	0.836
	Job security is almost guaranteed to employees in this hospital	0.900
	If the hospital were facing economic problems, employees would be the last to get cut	0.739
	<b>Cronbachs' alpha</b>	<b>0.831</b>



<b>Performance Management</b> Ang et al. (2013)	In this hospital, the performance management policy document is readily available to all staff	0.773
	In this hospital, staff performance is reviewed in accordance with agreed annual goals and organization-wide requirements and informal feedback is given	0.801
	In this hospital, there is a performance management system to ensure that staff are competent and accountable for their work	0.912
	In this hospital, there is a performance management system to ensure that future growth and development needs are identified	0.899
	In this hospital, the statements of accountabilities and responsibilities are regularly reviewed to ensure that they are relevant to current organizational needs and goals	0.827
	<b>Cronbachs' alpha</b>	<b>0.898</b>
<b>Job Clarity</b> Delery and Doty (1996)	The duties of this job are clearly defined	0.872
	This job has an up-to-date job description	0.917
	The job description for this job contains all of the duties performed by individual employees	0.913
	<b>Cronbachs' alpha</b>	<b>0.884</b>
<b>Employee Autonomy</b> Zacharatos et al. (2003)	<i>In general, how influence or input do you have about</i>	
	The type of work you do	0.779
	How you do your work	0.775
	When you start and finish work	0.765
	The pace at which you do your job, and	0.813
	Decisions which affect you at this workplace	0.656
	<b>Cronbachs' alpha</b>	<b>0.807</b>

**TABLE I.2** Economic and Social exchange

Dimension	Item	Loading
<b>Economic exchange</b> Shore et al. (2006)	My relationship with [my hospital] is strictly an economic one - I work and they pay me	0.721
	I only want to do more for [my hospital] when I see that they will do more for me	0.699
	I watch very carefully what I get from [my hospital], relative to what I contribute	0.732
	All I really expect from [my hospital] is that I be paid for my work effort	0.816
	I do what [my hospital] requires, simply because they pay me	0.742
	<b>Cronbach's alpha</b>	<b>0.792</b>
<b>Social exchange</b> Shore et al. (2006)	[My hospital] has made a significant investment in me	0.738
	I don't mind working hard today - I know I will eventually be rewarded by [my hospital]	0.781
	My relationship with [my hospital] is based on mutual trust	0.805
	I try to look out for the best interest of [the hospital] because I can rely on my hospital to take care of me	0.764
	Even though I may not always receive the recognition from [my hospital] I deserve, I know my efforts will be rewarded in the future	0.731
	<b>Cronbach's alpha</b>	<b>0.833</b>

**TABLE I.3** Emotional Exhaustion and Work Engagement (OLBI; Burnout)

Dimension	Item	Loading
<b>Emotional Exhaustion</b> Demerouti et al. (2010)	There are days when I feel tired before I arrive at work	0.806
	After work, I tend to need more time than in the past in order to relax and feel better	0.810
	During my work, I often feel emotionally drained	0.721
	After working, I have enough energy for my leisure activities (R)	0.708
	<b>Cronbach's alpha</b>	<b>0.759</b>
<b>Work Engagement</b> Demerouti et al. (2010)	I always find new and interesting aspects in my work	0.633
	It happens more and more often that I talk about my work in a negative way (R)	0.747
	Sometimes I feel sickened by my work tasks (R)	0.723
	I feel more and more engaged in my work	0.748
	<b>Cronbach's alpha</b>	<b>0.677</b>
(R) means reversed item		

**TABLE I.4** Job Satisfaction

Dimension	Item	Loading
<b>Job satisfaction</b> Seashore et al. (1982)	All in all, I am satisfied with my job	0.857
	In general, I do not like my job (R)	0.640
	In general, I like working here	0.786
<b>Cronbach's alpha</b>		<b>0.643</b>
(R) means reversed item		

## Appendix II

Empirical study #1 – Modeling patient care  
quality: an empirical high performance work  
system approach

**TABLE II.1** HPWS Measures

Dimension	Item	Loading
<b>Recruitment &amp; Selection</b> Zacharatos et al. (2005)	The recruitment and selection processes in this hospital are impartial	0.845
	Favoritism is not evident in any of the recruitment decisions made in this hospital	0.753
	All appointments in this hospital are based on merit (i.e. the best person for the job is selected regardless of his/her personal characteristics)	0.824
	Only the best people are hired to work in this hospital	0.709
	<b>Cronbachs' alpha</b>	<b>0.789</b>
<b>Training &amp; Development</b> Zacharatos et al. (2005)	Providing employees with training beyond that mandated by government regulations is a priority in this hospital	0.736
	This hospital subsidizes, assists or reimburses employees for training or courses taken outside of the workplace	0.746
	Employees of this hospital are encouraged to extend their abilities	0.773
	Employees are provided with training opportunities enabling them to extend their range of skills and abilities	0.813
	Employees in this hospital get the opportunity to discuss their training and development requirements with their immediate manager	0.727
	This hospital is committed to the training and development of its employees	0.831
<b>Cronbachs' alpha</b>	<b>0.863</b>	
<b>Participation in Decision Making</b> Delery and Doty (1996)	Employees in this job are allowed to make many decisions	0.730
	Employees in this job are often asked by their supervisor to participate in decisions	0.815
	Employees are provided with the opportunity to suggest improvements in the way things are done	0.863
	Superiors keep open communications with employees in this hospital	0.712
	<b>Cronbachs' alpha</b>	<b>0.787</b>
<b>Employment Security</b> Delery and Doty (1996)	Employees can expect to stay in the hospital for as long as they wish	0.784
	It is very difficult to dismiss an employee in this hospital	0.836
	Job security is almost guaranteed to employees in this hospital	0.900
	If the hospital were facing economic problems, employees would be the last to get cut	0.739
	<b>Cronbachs' alpha</b>	<b>0.831</b>

<b>Performance Management</b> Ang et al. (2013)	In this hospital, the performance management policy document is readily available to all staff	0.773
	In this hospital, staff performance is reviewed in accordance with agreed annual goals and organization-wide requirements and informal feedback is given	0.801
	In this hospital, there is a performance management system to ensure that staff are competent and accountable for their work	0.912
	In this hospital, there is a performance management system to ensure that future growth and development needs are identified	0.899
	In this hospital, the statements of accountabilities and responsibilities are regularly reviewed to ensure that they are relevant to current organizational needs and goals	0.827
<b>Cronbachs' alpha</b>		<b>0.898</b>
<b>Job Clarity</b> Delery and Doty (1996)	The duties of this job are clearly defined	0.872
	This job has an up-to-date job description	0.917
	The job description for this job contains all of the duties performed by individual employees	0.913
	<b>Cronbachs' alpha</b>	
<b>Employee Autonomy</b> Zacharatos et al. (2003)	<i>In general, how influence or input do you have about</i>	
	The type of work you do	0.779
	How you do your work	0.775
	When you start and finish work	0.765
	The pace at which you do your job, and	0.813
	Decisions which affect you at this workplace	0.656
<b>Cronbachs' alpha</b>		<b>0.807</b>

**TABLE II.2** Social identity

Dimension	Item	Loading
<b>Social Identity</b> Hinkle et al. (1989)	I identify with this group	0.820
	I am glad to belong to this group	0.862
	I think this group worked well together	0.710
	I see myself as an important part of this group	0.632
	I do not consider the group to be important (R)	0.653
	I feel strong ties to this group	0.729
<b>Cronbach's alpha</b>		<b>0.829</b>
(R) means reversed item		

**TABLE II.3** Psychological Empowerment

Dimensions	Item	Loading
<b>Meaning</b> Spreitzer (1995)	The work I do is very important to me	0.813
	My job activities are personally meaningful to me	0.837
	The work I do is meaningful to me	0.875
	<b>Cronbach's alpha</b>	<b>0.791</b>
<b>Competence</b> Spreitzer (1995)	I am confident about my ability to do my job	0.871
	I am self-assured about my capabilities to perform my work activities	0.872
	I have mastered the skills necessary for my job	0.825
	<b>Cronbach's alpha</b>	<b>0.799</b>
<b>Autonomy</b> Spreitzer (1995)	I have significant autonomy in determining how I do my job	0.842
	I can decide on my own how to go about doing my work	0.903
	I have considerable opportunity for independence and freedom in how I do my job	0.891
	<b>Cronbach's alpha</b>	<b>0.853</b>
<b>Impact</b> Spreitzer (1995)	My impact on what happens in my department is large	0.843
	I have a great deal of control over what happens in my department	0.920
	I have significant influence over what happens in my department	0.932
	<b>Cronbach's alpha</b>	<b>0.881</b>

**TABLE II.4** Quality of Care

Dimension	Item	Loading
<b>Quality of Care</b> Based on the Victorian Patient Satisfaction Monitor (VPSM)	I'm courteous to patients	0.654
	I try to explain patients all necessary information regarding their treatment	0.711
	I try to communicate comprehensively with the doctors, nurses and hospital staff regarding my patients' treatment	0.702
	I try to be helpful to patients	0.793
	I help to relieve the pain of patients	0.741
	I respect my patients' privacy during their stay	0.787
	I try to ensure my patients' personal safety	0.775
	I treat patients with respect	0.799
	I provide patients the opportunity to ask questions about their condition or treatment	0.724
	I am willing to listen to patients' health care problems	0.673
	I try my best to respond to patients' health care problems	0.736
	<b>Cronbach's alpha</b>	<b>0.914</b>



## Appendix III

Empirical study #3 - Linking innovative human resource practices, employee attitudes and intention to leave in healthcare services

**TABLE III.1** HPWS Measures

Dimension	Item	Loading
<b>Recruitment &amp; Selection</b> Zacharatos et al. (2005)	The recruitment and selection processes in this hospital are impartial	0.845
	Favoritism is not evident in any of the recruitment decisions made in this hospital	0.753
	All appointments in this hospital are based on merit (i.e. the best person for the job is selected regardless of his/her personal characteristics)	0.824
	Only the best people are hired to work in this hospital	0.709
	<b>Cronbachs' alpha</b>	<b>0.789</b>
<b>Training &amp; Development</b> Zacharatos et al. (2005)	Providing employees with training beyond that mandated by government regulations is a priority in this hospital	0.736
	This hospital subsidizes, assists or reimburses employees for training or courses taken outside of the workplace	0.746
	Employees of this hospital are encouraged to extend their abilities	0.773
	Employees are provided with training opportunities enabling them to extend their range of skills and abilities	0.813
	Employees in this hospital get the opportunity to discuss their training and development requirements with their immediate manager	0.727
	This hospital is committed to the training and development of its employees	0.831
<b>Cronbachs' alpha</b>	<b>0.863</b>	
<b>Participation in Decision Making</b> Delery and Doty (1996)	Employees in this job are allowed to make many decisions	0.730
	Employees in this job are often asked by their supervisor to participate in decisions	0.815
	Employees are provided with the opportunity to suggest improvements in the way things are done	0.863
	Superiors keep open communications with employees in this hospital	0.712
<b>Cronbachs' alpha</b>	<b>0.787</b>	
<b>Employment Security</b> Delery and Doty (1996)	Employees can expect to stay in the hospital for as long as they wish	0.784
	It is very difficult to dismiss an employee in this hospital	0.836
	Job security is almost guaranteed to employees in this hospital	0.900
	If the hospital were facing economic problems, employees would be the last to get cut	0.739
<b>Cronbachs' alpha</b>	<b>0.831</b>	

<b>Performance Management</b> Ang et al. (2013)	In this hospital, the performance management policy document is readily available to all staff	0.773
	In this hospital, staff performance is reviewed in accordance with agreed annual goals and organization-wide requirements and informal feedback is given	0.801
	In this hospital, there is a performance management system to ensure that staff are competent and accountable for their work	0.912
	In this hospital, there is a performance management system to ensure that future growth and development needs are identified	0.899
	In this hospital, the statements of accountabilities and responsibilities are regularly reviewed to ensure that they are relevant to current organizational needs and goals	0.827
<b>Cronbachs' alpha</b>		<b>0.898</b>
<b>Job Clarity</b> Delery and Doty (1996)	The duties of this job are clearly defined	0.872
	This job has an up-to-date job description	0.917
	The job description for this job contains all of the duties performed by individual employees	0.913
	<b>Cronbachs' alpha</b>	
<b>Employee Autonomy</b> Zacharatos et al. (2003)	<i>In general, how influence or input do you have about</i>	
	The type of work you do	0.779
	How you do your work	0.775
	When you start and finish work	0.765
	The pace at which you do your job, and	0.813
	Decisions which affect you at this workplace	0.656
<b>Cronbachs' alpha</b>		<b>0.807</b>

**TABLE III.2** Work Engagement (OLBI)

Dimension	Item	Loading
<b>Work Engagement</b> Demerouti et al. (2010)	I always find new and interesting aspects in my work	0.633
	It happens more and more often that I talk about my work in a negative way (R)	0.747
	Sometimes I feel sickened by my work tasks (R)	0.723
	I feel more and more engaged in my work	0.748
	<b>Cronbach's alpha</b>	
(R) means reversed item		

**TABLE III.3** Job Satisfaction

Dimension	Item	Loading
<b>Job satisfaction</b> Seashore et al. (1982)	All in all, I am satisfied with my job	0.857
	In general, I do not like my job (R)	0.640
	In general, I like working here	0.786
<b>Cronbach's alpha</b>		<b>0.643</b>
(R) means reversed item		

**TABLE III.4** Affective Commitment

Dimension	Item	Loading
<b>Affective commitment</b> Allen and Meyer (1990)	I would be very happy to spend the rest of my career with this hospital	0.720
	I enjoy discussing my hospital with people outside it	0.693
	I do not feel like 'part of the family' at this hospital (R)	0.801
	I do not feel 'emotionally attached' to this hospital (R)	0.853
	This hospital has a great deal of personal meaning to me	0.785
	I do not feel a strong sense of belonging to my hospital (R)	0.795
<b>Cronbach's alpha</b>		<b>0.867</b>
(R) means reversed item		

**TABLE III.5** Intention to leave

Dimension	Item	Loading
<b>Intention to leave</b> Ang et al. (2013)	I often think of quitting the hospital	0.909
	I think of searching for another position with another hospital	0.900
	I often think of leaving the hospital within the next year	0.905
<b>Cronbach's alpha</b>		<b>0.887</b>