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Market competition, HRM, and firm performance: The conventional paradigm critiqued and reformulated

Bruce E. Kaufman *

Department of Economics, Georgia State University, Atlanta GA USA
Department of Employment Relations & Human Resources, Centre for Work, Organization, and Wellbeing, Griffith University, Brisbane, QLD, Australia

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ABSTRACT

A proposition in the HRM literature is that to survive intensifying competition firms need to more effectively use their human capital by implementing high-performance work practices (HPWPs). This proposition is anchored on both extensive empirical evidence of a positive HPWP effect on performance and a theoretical model which incorporates ideas from strategy, RBV, AMO, behavioral, human capital, and organizational capability perspectives. This paper argues that on deeper examination both empirical and theoretical arguments have significant flaws and weaknesses which undercut the 'more competition → more HPWPs → higher firm performance' proposition. Indeed, using an alternative economics-based model the paper concludes the likely effect of intensified competition is, on balance, the opposite of the standard model; that is, more competition leads to less HPWPs. The model also demonstrates why the positive HPWP effect found in empirical studies is likely upward biased and more association than causation. The paper reconciles a number of empirical anomalies, such as why high-performance work systems are not more widely adopted, and explains why the conventional advice given to managers – invest in more HPWPs – needs revision.

1. Introduction

> "Competition affects personnel policies and procedures so greatly that it forms the proper background for our analysis." (Balderston, 1935: 222).

The human resource management (HRM) field is broad and multi-level but at its core is the subject of how HRM systems and practices affect organizational performance. The recent eleven-chapter book *HRM & Performance*, edited by Paauwe, Guest, and Wright (2013), provides a state-of-the-art survey and synthesis of this literature, particularly as it has developed and evolved since Huselid's (1995) pioneering study.

In the conclusion chapter, Paauwe, Guest and Wright (hereafter PGW) summarize the themes and findings from their volume and the HRM research literature at large. On the central question of HRM and performance, they state, "reviews of research findings have consistently shown that, irrespective of business strategy and context, there is a strong association between the adoption of more 'progressive,' 'high-performance' or 'high commitment' HR practices and organizational outcomes" (pp. 197–98). In a wrap-up statement several pages later, PGW observe, "while there are still many gaps to be filled…, we can be more certain that research findings demonstrate that an association exists. On this basis, we can generally recommend that a *full use* of HRM is good for organizations…" (p. 204, emphasis added). These conclusions are quite close to Huselid's (1995) original formulation, stated as: "All else being equal, the use of High Performance Work Practices [HPWPs] and good internal fit should lead to positive outcomes for all types of

* Tel.: +1 404 217 4649.
E-mail address: bkaufman@gsu.edu.

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firms" (p. 644). The positive HRM/HPWP effect (note both terms are used in the quotations) and its 'full use' implication are framed by De Winne and Sels (2013: 181) in their chapter in the PGW volume as the *more is better* proposition (their words).

The proposition that more HRM/HPWPs are better is a straightforward implication of the positive HPWP regression coefficient which PGW indicate is widely found in empirical HRM–performance studies. However, researchers have also long noted that the positive main effect and the adoption and configuration of high performance work systems (HPWS) may be modified, although typically not reversed, by numerous mediating, contingent, and contextual factors (Boxall & Purcell, 2011; Delery & Doty, 1996; Lepak & Snell, 1999). The contingency getting the most attention is the firm's business strategy. Numerous other internal and external contingent factors have also been examined; for example, Datta, Guthrie, and Wright (2005) ask in the title of their paper: Does Industry Matter?

This paper asks: Does Market Competition Matter? HRM researchers take a bifurcated position on this question. Formal analysis is sparse (reviewed in Patel & Cardon, 2010) but informal statements abound. In the latter category, studies frequently cite increased competition as a major reason why companies need to get more value from their human capital by shifting from a traditional to transformed HRM system. For example, Wright and Kehoe (2008) observe, "In a world increasingly characterized by globalization of product markets, the importance of human capital as a resource that can potentially provide competitive advantage has become more important because a firm's people are integral to success" (p. 6). In the formal category, Jackson, Schuler, and Jiang (2014) put forward this conclusion from a literature review: "Firms facing high levels of market competition… are more likely to implement high-performance HRM systems" (p. 16). This proposition can be restated as: more competition → more HPWPs.

The relative lack of formal attention in the HRM–performance literature to market competition, and the external economic environment in general, is both understandable and surprising. It is understandable because the empirical evidence suggests that contingencies play a relatively spotty and modest role (the PGW quote). Research focus has also over the last decade increasingly shifted to a more micro focus on individual/behavioral processes and determinants in the black box connecting HRM and performance (Messersmith, Lepak, Patel, & Gould-Williams, 2011). The internal focused resource-based view (RBV) of the firm is the dominant theoretical frame (Allen & Wright, 2007), and psychology is the dominant disciplinary frame (Chadwick & Dabu, 2009). It is surprising, on the other hand, because the RBV is built from microeconomics and the model of perfect competition (Barney & Clark, 2007: Ch. 2) and important concepts, such as business strategy, competitive advantage, vertical fit, and resource value, are only explicable by reference to market constructs and forces (prices, demand/supply, etc.). Likewise, it seems difficult to empirically explain the different business strategies and HRM systems firms adopt within and across industries and nations (e.g., Walmart vs. Costco; McDonald's vs. Microsoft; Deutsche Telekom vs. Verizon) without attention to their economic environment and competitive conditions (their external 'playing field'). Indeed, the importance of competitive analysis was emphasized by Balderston, management professor and dean of the Wharton School, in the mid-1930s in his book on strategic HRM (*Executive Guidance of Industrial Relations* 1935). Nonetheless, Jackson, Schuler, and Jiang (2014) conclude, "much of the empirical research has ignored … environmental influences" (p. 25).

Accordingly, a good case can be made that the competition–HRM topic deserves more of both theoretical and empirical analysis. This paper starts with the theory side. In researching the topic, the author became convinced that the formal/informal proposition 'more competition → more HPWPs' is probably incorrect and the opposite relation is more likely on both theory and empirical grounds. Likewise, it appears that the mis-prediction problem stems from serious – perhaps fatal – logical and methodological flaws in the HRM–performance model widely used in the literature. Hence, while the paper is focused on the specific topic of competition–HRM, working out the logically correct hypothesis takes the paper into a deeper paradigm critique and development of an alternative economics-based HRM model. The scope of the article, therefore, is broader than most and brings out for discussion fundamental issues of theory, method, and empirical analysis.

The next section of the paper presents a literature review. The first part sketches the place of market competition in the HRM research stream and further documents through citations and quotations the more competition → more HPWPs hypothesis. Since this proposition is typically informally and somewhat heuristically stated, the second part of this section advances HRM theory by showing in a two-part diagram how and why the standard HRM–performance model in the literature leads to the more competition → more HPWPs hypothesis. The paper's next section presents five empirical anomalies related to competition/HRM which are inconsistent with the HRM model's maintained hypothesis. Given these shortcomings and question marks, the paper next outlines an alternative economics-based model, applies the model to analyze the Does Competition Matter? contingency, shows that the predicted effect of greater competition is less HPWP adoption, and then identifies three contingent factors which modify and possibly reverse the negative relation. Since the two models considered in the paper yield opposed predictions, attention is given to identifying the assumptions, concepts, and causal linkages which lead to this divergence; likewise, the economics-based model is used to shed light on the five empirical anomalies earlier cited. Finally, this model is also used to demonstrate why the estimated main effect in empirical studies is likely an over-estimate of the causal effect of HPWPs on performance.

To avoid unproductive controversy, considerable effort is made to accurately summarize the mainline of the HRM research literature — called the "basic accepted wisdom" by Jackson, Schuler, and Jiang (2014: 21). Naturally, around the basic accepted wisdom is a considerable amount of heterogeneity in findings and perspectives of individual authors and studies. Thus, my representation and interpretation of the 'standard model' in HRM is an attempt to draw a mean-centered straight line through a large, dispersed, and noisy set of data points (reviewed in Kaufman 2014a, 2014c). Inevitably, some readers will look at the literature and think the line should have been drawn differently, generalizes too much about a complex subject and body of evidence, or leaves out important qualifications. This problem is heightened because the paper is a critique from outside the management field which elicits defensive reactions and generates mutual misunderstandings due to different lexicons and analytical mindsets (Zyphur, 2009). Constructing a consensus portrait of HRM is also made difficult by incommensurate definition and usage of key constructs across studies (e.g., what is HRM?, what is an HPWP?) and divergent representations of research findings (e.g., PGW feature on the first page a quotation stating 'no confidence' in a positive HPWP effect yet on the second-to-last page reverse position to a 'fully confident' view).

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1. Competition and HRM: literature and model review

Since the relationship between market competition and HRM has received little research attention and, also, because management-based and economics-based models are compared and critiqued in the paper, an overview section helps frame the discussion and establish a common ground of understanding. The overview is divided into two parts: first, summary of the general perspective taken on competition and HRM in the management-based literature and, second, a diagrammatic representation of the standard HRM–performance model and derivation of market competition's hypothesized effect on HRM.

2. Competition and HRM: literature perspective

The ubiquity of the competition topic in the modern HRM literature is revealed by a search of the electronic ABI/Inform data base for 2013 using the key word 'competition' in the text and 'human resource' in the title. The search engine found 31 articles and the author identified a sentence in the text of 21 where explicit reference is made to a link between competition and HRM. Authors use phrases such as: "increasing global competition," "intensifying competition," "cutthroat global competition," and "competition is growing stronger and stronger."

Competition comes from rivalry among firms for customers' business and it appears indisputable that over the last thirty years reduced transportation costs, improved technology, and deregulation have opened-up many markets to a larger number of domestic and foreign players. An example self-evident to most Americans and Europeans is steadily increasing market penetration by Asian firms, particularly from China. A concomitant of greater competition is downward pressure on product prices and erosion of market share and profit margins, as experienced across automobiles, electronics, clothing and a wide range of other industries. Greater competitive pressure in product markets ripples into labor markets where, for example, American workers experience downward pressure on wages and conditions from the competition for jobs by the one billion-plus Asian workers joining the globally-connected labor force (Freeman, 1995).

Economists take an efficiency perspective and welcome more market competition because it incents firms through the threat of foregone profit and bankruptcy to continually search for more efficient and low-cost ways to supply goods and services to consumers. Industrial relations writers, because they give more emphasis to market failures and employees' interests, think competition needs to be balanced and regulated by institutions, such as labor laws, unions, and government monetary policy. Management researchers, in contrast, look at competition through an organizational lens and see it as a threat to firm performance and a problem to be overcome through strategic initiatives, such as innovative product design and unique internal capabilities and resources.

The effect of competition on employment practices and conditions is arguably the foundation subject of industrial relations, as illustrated in the seminal works by Commons (1909) and the Webb and Webb (1897) on the downward pressure on labor conditions from, respectively, the extension of markets and higgling of markets. It has also received continuing attention and emphasis through the years. For example, highlighted as the epigraph to this article is Balderston's (1935) conclusion about the superordinate impact of competition on employment practices, derived from a study of personnel/IR practices at twenty-five of America's leading employers in the early 1930s. In a fast-forward to the 1990s and a new round of intensified competition from globalization, Cappelli (1999a) observes, "Careers and employee management more generally are increasingly driven by the outside labor market" (p. 162) and concludes "the rising power of markets is one of the most important developments of our generation" (p. 163).

Historically viewed, researchers in personnel management did not give competition and markets near the same attention (Ling, 1965), in large part because their research focus was inside the organization on management concerns, personnel practices, and employee behaviors. The human relations movement of the 1930s–1950s and development of the organizational behavior field in the 1960s–1970s, with their strong orientation to psycho-social determinants of individual differences, reinforced the internal perspective (Kaufman, 2014a; Wren & Bedeian, 2009). However, an important reorientation occurred in the 1980s with the shift from personnel/industrial relations (PIR) to human resource management and, in particular, the development of the new field of strategic human resource management (SHRM). The keynote of the shift to HRM was emphasis on a newly developed model of Theory Y participative management (McGregor, 1960) and high-commitment employment practices (Walton, 1985), later widely referred to in various guises as a high-performance work system (HPWS). Likewise, the keynote of the development of SHRM was taking a system's view of HRM practices and configuring them to fit the firm's business strategy (Jackson, Schuler, & Jiang, 2014; Lengick-Hall, Lengnick-Hall, Andrade, & Drake, 2009). Market competition, therefore, became a more prominent subject in the HRM research stream for three related reasons. First, many American companies in the 1980s were suffering reduced profitability from domestic industry deregulation and greater competition from Japan and other countries. Second, the new high-performance HRM system was seen as perhaps the best way for companies to regain competitive advantage through better human resource utilization. And, third, intensified competitive conditions in external markets are clearly an important factor shaping firms' business strategies.

All of these themes and developments about competition are illustrated in pioneer books of the mid-1980s, such as *Managing Human Assets* (Beer, Spector, Lawrence, Mills, and Walton, 1984) and *Strategic Human Resource Management* (Fombrun, Tichy, & Devanna, 1984; Kaufman, 2014c). The latter set of authors, for example, start the Preface with this statement (p. ix):

> [E]conomic pressures born of increasing resource scarcities and interdependence on a global scale are provoking a scramble for market share, competitiveness, and the efficient use of resource inputs in the production process. Based on sound economic logic, then, the untapped contributions of the human resources in organizations could make the difference between efficiency and inefficiency, death and survival in the competitive marketplace.

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These themes and ubiquity of the competition word have remained fixtures in the HRM literature to the present time. For example, Beer (1997) in an article on "The Transformation of the Human Resource Function" states:

> Competition, globalization, and continuous change in markets and technology are the principal reasons for the transformation of human resource management… A flatter, less bureaucratic, less hierarchical, faster and more responsive organization is emerging as the model for the future.

More recently but in the same vein, Allen and Wright (2007: 88) state:

> Spurred on by increasing competition, fast-paced technological change, globalization, and other factors, businesses are seeking to understand how one of the last truly competitive resources, their human resources, can be managed for competitive advantage. The idea that the human resources of a firm can play a strategic role in the success of an organization has led to the formation of a field of research often referred to as strategic human resource management.

These quotations identify what has become the core research focus of the HRM field: establishing that a transformed, sophisticated, high-commitment, and human capital management system does, in fact, provide firms with a strategic path to restore competition-eroded financial performance. This proposition has substantial scientific and practical importance; however, as suggested by Kaufman (2012, 2014a) it is also clearly driven and (mis)shaped by a strong normative concern among many researchers to demonstrate 'HRM matters.' Illustratively, PGW open their book with the sentence, "Practitioners interested in human resource management (HRM) have long sought to convince others of its value" and then note that in response "academic research has exploded over the past twenty years, *seeking to show* that HRM practices are related to firm performance" (p. 1, emphasis added). The 'HRM matters' proposition has, accordingly, been examined in dozens of empirical studies and several meta-analyses. Combs, Hall, Liu, and Ketchen (2006), for example, formulate as the central proposition of the SHRM research program: "The use of HPWPs is positively related to organizational performance" (p. 504) and conclude from their meta-analysis, "our results lay to rest any doubt about the existence of a [positive] relationship" (p. 524).

Symbolically, the central proposition of the HRM field is in broad form 'more HRM → higher firm performance' and in narrower form 'more HPWPs → higher firm performance,' with the arrow denoting causality and 'more' capturing the positive effect from investment in additional HR quantity, quality, and sophistication. In empirical studies, authors often weaken causality between HPWPs and performance to association (see the PGW quote in the introduction), in recognition that the positive HRM coefficient may capture only correlation. In theory discussions and box-arrow diagrams, however, causality is postulated, per the statement of Wright, Gardner, Moynihan, and Allen (2005: 418) that it is, "universally assumed in the HR-performance literature."

As documented above, a reasonable reading of the literature is that a (if not *the*) principle contingent force pushing/pulling firms toward transformed HPWPs is increased market competition. This hypothesis is explicitly formulated by Patel and Cardon (2010): "A greater degree of product-market competition will lead to adopting more HRM practices" (p. 268, emphasis added). As earlier quoted, Jackson, Schuler, and Jiang (2014) put forward the same hypothesis.

3. Standard model: competition incorporated and assessed

A contribution of this paper is to take the theoretical framework widely used in the literature and work out the cause–effect connection between competition and HRM. A reasonable summary is that this framework/model commands widespread acceptance on first-order basics but contains a number of second-order issues still debated and unresolved. Thus, Jiang et al. (2012) speak of 'emerging consensus' with 'challenges of clarifying' (p. 73) while Lepak and Shaw (2008) speak in stronger terms of "overwhelming agreement on these broad issues" (p. 1492).

Although a model in personnel economics (Lazear & Oyer, 2013) typically means a set of equations with a determinate solution, this approach is not popular in management, for reasons such as realism, practical application by managers, and inclusion of qualitative and non-quantifiable factors, and the model of choice is therefore a box-arrow diagram. Accordingly, if a standard model is indeed widely accepted among HRM researchers, it should be readily available in diagram form. After a search of the literature, I concluded that the best representation of the essentials of the HRM–performance model is provided in an article by Becker, Huselid, Pickus, and Spratt (1997, hereafter BHPS). Wright and Haggerty (2005) describe it as, "one of the more thorough models of SHRM" (p. 166). The constituent parts are shown in Fig. 1 in panels (a) and (b). The panel (b) part matches very closely the diagram presented by De Winne and Sels (2013, Figure 10-1) in the PGW volume. Revealingly, the title these authors give to the diagram starts with "Standard Causal Model."

BHPS motivate the article by appealing to the survival threat firms face from more competition. They observe, "changing market conditions have rendered many of the traditional sources of competitive advantage…less important" (p. 39). The solution is to find a new source of competitive advantage and they argue that it lies with a firm's human capital and, in particular, a "skilled, motivated, and adaptable workforce, and in the HRM system that develops and sustains it" (ibid.). The traditional employee management system, often associated with bureaucratic–functional–transactional personnel management and adversarial-collective bargaining industrial relations, is "in crisis because its…role does not create value" (p. 45). Performance suffers, therefore, and the firms face growing risk of being culled-out by competition. The solution BHPS advance is, "transforming this crisis into an opportunity…with a new organizational perspective on the HRM system …often referred to as High Performance Work Systems" (p. 39, 40). This new organizational perspective utilizes a different model featuring

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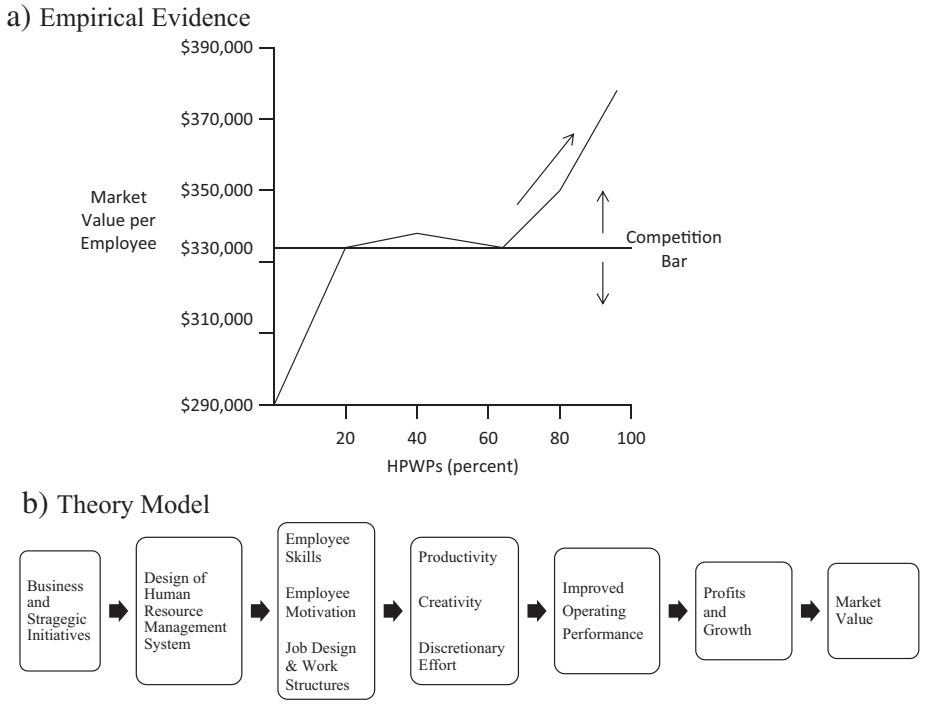

Fig. 1. HRM performance model.

commitment/participative management, strategic/value focus, and proactive/system approach with an integrated deployment of HPWPs that "can create real shareholder value" (p. 45). In an earlier article, Schuler (1990) cogently frames in three words the competitive choice facing firms, the HR function, and HRM practice: transform or demise.

The case for the transform or demise prediction is based on the empirical evidence in panel (a) and is theoretically adduced with the model in panel (b). Panel (a) shows that, on average, greater use of HPWPs leads to higher firm performance. The horizontal axis depicts firms' HRM bundles ranked from 0% to 100% based on breadth, depth, and sophistication of HPWPs. Since the HRM index on the horizontal axis measures HPWP intensity, the origin is not zero employee management practices but, rather, the practice set of the firm with the lowest index score (BHPS, note 9). For purposes of exposition, this zero score is assumed to mark the transition from a PIR system to the beginning elements of an HPWS (assuming PIR = traditional, HPWP = transformed, and HPWP has higher performance). The vertical axis measures firm financial performance, expressed as market value per employee. Based on regression results from a data set with over 700 firms, these authors plot the relationship between use of HPWPs and firm performance, henceforth called the HRM–performance line. It has a modestly downward sloping segment in the middle but the overall trend is distinctly upward. This author has drawn in a horizontal 'no value' line marked Competition Bar (CB), showing that below the line the HRM system is a minus for firm value (meaning market value per employee is below the amount yielding long-run survival return on capital) and above the line is a plus (see quotation directly below).

Regarding the positive-sloped HRM–performance line, BHPS give this interpretation (pp. 40–41, emphasis added):

> First, the impact of more intensive deployment of an HPWS is associated with substantially greater market value per employee. Second, [the figure] shows that the returns from investments in a HPWS are not linear…. As firms make initial steps toward the development of a HPWS (i.e., moving from the lowest firms in the ranking to the 20th percentile) the HRM system moves from an *impediment to a neutral* strategic influence. Here the HRM system creates value by getting out of the way. For the broad middle range, improving the relative sophistication of the HRM system (adoption of best practices) has little marginal impact on firm performance. This approach *does no damage*, but HRM is not really a strategic partner. Finally, firms above the 60th percentile arguably have all the best practices, but more importantly have begun to integrate this system more broadly into the operational fabric of the firm….It is the reflection of the *payoffs to competitive advantage*.

The HRM implications of this diagram are clear and were succinctly stated by Huselid (1995) two years earlier in his pioneering article (quoted in the introduction). Here rests the empirical basis for the 'more HPWP is better' hypothesis. More competition slowly raises the survival CB line and culls out the low-performers. In panel (a), this winnowing process can be represented by first locating the CB line at a low position in the diagram and then gradually bringing it up as competition intensifies and firms have to get more return from each employee. Faced with a rising survival bar, firms have the choice Schuler articulated – they either stay with the traditional approach and die because they are not getting enough value from their employees or choose to survive – even get a

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competitive advantage and superior profit – by investing in a transformed HRM system. Both the stick of survival and the carrot of superior returns, therefore, should cause firms to shift toward more HPWPs and move up the performance line, indicated by the upward arrow.

Next consider the theory advanced to support this hypothesis. The order of presentation in Fig. 1 – empirical first (panel a) and theoretical second (panel b) – reflects the widely acknowledged fact (PGW, p. 198; also, Huselid & Becker, 2011, p. 422) that the empirical evidence is the driver of the research program and the challenge is to back it up with a strong conceptual explanation. Although the details vary across studies, the diagram in panel (b), also from the BHPS article, captures the main elements common in the literature.

The HRM–performance sequence starts on the left-side of the diagram and proceeds box-by-box to the right-side. The first thing to note is that the place of market competition – more generally any type of contingency/contextual variable related to the external economic environment – is not featured. In terms of the logic of the model, external economic factors would typically be included in a box somewhere near the left-hand side of the diagram and connected with an arrow to the first box, Business and Strategic Initiatives. Fig. 1 in Wright and McMahan (1992) is illustrative; textbook diagrams also often include an economic environment box (e.g., Lepak & Gowan, 2010: 3). But, in the BHPS diagram some kind of external/economic contingency box is omitted. This omission seems odd on three counts: first, in the introductory paragraph BHPS cite "competitive pressures" as the force mandating HRM transformation; second, in the same paragraph they say the priority is to align the HRM system with the firm's strategy which, presumably, differs according to competitive conditions; and, third, practitioners are encouraged to take a strategic business partner perspective which also presumably involves competitive analysis. However, this duality of stressing the importance of competition but omitting economic forces and competition as HRM determinants is common. The PGW volume, for example, contains eleven diagrams illustrating the HRM–performance relationship, either in part or whole, but none depict a place in the model for competition, the market environment, or any other external influence (e.g., cultural, legal, political, union). The standard HRM model, therefore, is in many representations a (mostly) closed system.

This narrowness arises, in part, because the research stream has become increasingly unbalanced in its emphasis on individual, internal, and psychological HRM determinants (Godard, 2014; Kaufman, 2012, 2014b, 2014c). Also, the external environment seems to lose explanatory importance given the large empirical evidence in favor of a strong universalistic HPWP main effect and small-to-zero effect of external contingency variables (the introductory PGW quote; also Becker & Huselid, 2006). Paradoxically, these results strengthen the proposition 'HRM matters' but also seriously limit the importance of HRM strategies since in practice a single strategy (with variations) dominates. Illustratively, Becker and Huselid (2006) assert, "it is not a question of high-performance vs. low-performance systems but rather a question of which high-performance system is appropriate" (p. 904) and therefore conclude that investigating the black box is the number one research priority.

By way of contrast, early works in SHRM reverse the priority (Kaufman, 2014c). In the HRM model provided by Beer et al. (1984, Fig. 2-1), a box labeled Situational Factors precedes the HRM Policy Choices box and in the former are seven external contingency variables, including Business Conditions and Labor Market. Of the twenty-one items listed in the various boxes before the performance outcome box, only one (Commitment) is specifically behavioral–psychological. Beer et al. also postulate multiple co-existent strategies and link them to competitive conditions, stating, "The combination of bureaucratic and market approaches [e.g., a PIR strategy] is particularly relevant to situations where economies of scale are possible, where markets and technology are stable, and where *prices are highly competitive*" (p. 184, emphasis added, and noting here more competition → less HPWP). Likewise, in Figs. 3-1 and 3-2, Fombrun et al. (1984) identify in circles economic forces, political forces, and cultural forces as drivers of firm-level and HRM-level strategy but identify no behavioral–psychological factor anywhere in the two diagrams.

Thus, on the one hand it is not surprising that a competition variable is not an active factor formally considered in present-day HRM research because the focus in the literature is on the internal–behavioral boxes in panel (b) of Fig. 1 which start *after* business strategy. Illustratively, Jackson, Schuler, & Jiang, 2014 report that less than 10% of the 154 empirical studies they reviewed even include a business strategy variable. Likewise, they observe that external environment variables are "usually relegated…to the status of mere 'control variables'" and, as a consequence, "we understand little about when, where, and why HRM systems become established" (p. 16). Paradoxically, therefore, the much-touted importance of aligning HRM with the firm's business strategy actually rests on infrequent and weak empirical evidence (see the introductory PGW quotation) and the key explanatory issue of why and when firms choose different business strategies – and how this choice is influenced by external environmental variables – is mostly ducked.

With this lacuna noted, assume the economic environment becomes more competitive. The first thing to ask is: why should a firm and its executives pay attention to competition? The reason is because in a market economy firms only remain viable as long as they generate enough profit to cover costs in the short-run and enough profit to yield a competitive rate of return on invested capital (ROI) in the long-run. (Non-profit firms have to stay within a budget constraint and, typically, at least break-even.) When competition increases, product markets have more firms competing for the customers' business, creating downward pressure on prices and market share and erosion of profits and ROI. The alternative way to look at it is that competition keeps raising the survival bar and firms have to respond by raising their performance. It is, therefore, competition's threat to profit and ROI which galvanizes the attention of executives and gets them thinking in terms of a survival/growth strategy. The BHPS model starts at this point (see box 1).

Given more competition, the object of strategy is to devise a plan of action which increases performance and acquires competitive advantage. Strategy has two levers for raising profit and ROI. Profit is the difference between revenue and cost and to raise profit executives must increase revenue, reduce cost, or accomplish both. When the field of strategic HRM started out thirty years ago, the product market positioning strategy pioneered by economist Michael Porter (1980) was dominant. Its approach to performance improvement was to increase the revenue side by repositioning the firm into protected product market segments (protected by product differentiation, entry barriers, etc.) where attenuated competition permits higher prices and larger profit margins. If shields to

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competition cannot be devised, such as for commodity-like products or highly contestable markets, then the strategy focus shifts to achieving a performance edge through cost reduction. For reasons Schuler and Jackson (1987) and Arthur (1992) describe, a higher price strategy creates the financial resources and competitive space for longer-term investment in employees and advanced HRM practices while a lower cost strategy means continual operational and financial belt-tightening which shifts HRM strategy toward a short-run emphasis on cut-backs and reduced investment in employees and the HR function.

The Porter model, very popular in the 1980s, was based in industrial organization economics and emphasized market structure and competitive conditions. It has largely been supplanted in HRM, however, by the resource-based view (RBV) pioneered by Barney (Barney, 1991; Barney & Clark, 2007). The resource-based view is positioned by Barney as a complementary theory of organizational performance and strategy of competitive advantage. Allen and Wright (2007) observe, "the resource-based view has become the guiding paradigm on which virtually all strategic HRM research is based" (p. 90; also, PGW p. 198). The RBV approach increases firm performance by moving both profit levers — raising revenue and lowering cost. The key difference is that it looks inside the firm (not external markets) to generate higher performance by getting more value out of internal resources and capabilities.

The RBV improves performance by applying the strategy of VRIN to human resources (Barney & Wright, 1998; Wright, Dunford, & Snell, 2001). VRIN increases the profit stream by transforming internal firm resources so they have the following four characteristics: Value, Rare, Inimitable, and Non-reproducible. The first term, Value, increases profit by giving the firm higher productivity human capital which produces superior products at lower cost. The last three terms increase profit on both the revenue and cost side, but mostly the latter. The V term makes a firm's human capital a potential source of competitive advantage but the challenge is to then shield the human capital from competitive erosion of value, either by competitor firms hiring away the high-productivity workers or the workers bidding-up their wages through threat of exit until all gains from higher value are dissipated. This competitive shield is created by what are widely called 'immobilizing devices' (Coff & Kryscynski, 2011). The most-cited example is making the value of human capital firm-specific, thus inhibiting turnover and diminishing the productivity value of workers to rival firms (McMahan & Harris, 2013). The RIN component, therefore, bonds workers to the firm and increases performance by reducing costs such as for turnover and compensation. The Rare component may also increase revenues to the extent it adapts the human capital to more productively fit idiosyncratic aspects of the production process.

The RBV provides firms with a strategy to survive and prosper in the face of a more competitive market place. As the survival bar moves up in panel (a), firms which implement VRIN move up the HRM–performance line. But VRIN has to be implemented through a HRM system, which leads to box 2 in panel (b) labeled Design of Human Resource Management System. A challenge for theory is to identify which type of HRM system best promotes VRIN, given that individual HRM practices come in many varieties and application intensities and can be mixed and matched to form alternative bundles (Kaufman, 2013; Lepak & Snell, 2007; Toh, Morgeson, & Campion, 2008).

One such bundle is composed of human resource practices associated with the traditional PIR model. If this model led to superior firm performance then the performance line in panel (a) would rotate and have a negative slope (a 'less HPWPs' proposition). But the empirical evidence indicates the opposite, that is, it finds more HPWPs → higher performance, and RBV points to a reason. HPWPs are called high-performance practices precisely because they contribute to higher financial outcomes, such as through successful VRIN. HPWPs that create Value, for example, are hiring the best workers through careful selection processes, increasing skills through extensive training, motivating discretionary effort through pay-for-performance, tapping employees' knowledge through involvement schemes, and promoting self-coordination through worker-managed teams (Jiang, Lepak, Hu, & Baer, 2012; Liu, Combs, Ketchen, & Ireland, 2007). HPWPs also create RIN through company specific training, benefit and compensation programs, broad and enriched jobs, fair and proactive resolution of disputes, and a partnership organizational culture. Each individual HPWP contributes to higher performance through the twin levers of value and/or cost; the individual effect can then be amplified by integrating all the components into a synergistic and mutually reinforcing bundle (horizontal fit) and aligning the bundle – now a high-performance *system* – with the firm's business strategy (vertical fit).

Now comes the third box. It has three items: Employee Skills, Employee Motivation, and Job Design & Work Structures. It is widely recognized that HRM practices are mostly an indirect driver of firm performance and succeed or fail to the extent they equip employees with the most productive human capital and induce them to provide maximum pro-performance behaviors. The third box in the BHPS diagram has in more recent years been widely relabeled to the AMO trilogy of ability, motivation, and opportunity (Boxall & Purcell, 2011; Jiang, Lepak, Hu, & Baer, 2012). Ability refers to the productivity attributes of human capital, such as employee skills, education and physical–mental ability. Motivation refers to the process of energizing employees to maximally use their ability to promote firm performance. Opportunity refers to giving employees the autonomy, tools, and decision-making so they can provide their full potential. All three components have a substantial human dimension and provide an entrée into HRM theory for broad application of behavioral science theories and principles. For example, motivation is linked to work practices which create a psychological disposition of high organizational commitment.

Logic suggests that firms which get more AMO from employees will achieve higher performance through outcomes such as Productivity, Creativity, and Discretionary Effort listed in the fourth box. The question again arises, however: which HRM system and set of practices are best able to generate more AMO? Again, the answer in the literature (e.g., Becker & Huselid, 2006; PGW: p. 198) is some version of an HPWS with component HPWPs aligned, integrated, and RBV-differentiated. The HPWS dovetails with AMO because it gives emphasis to selecting the best talent, developing employees' productivity through internal human capital development, incenting high motivation through intrinsic rewards (satisfying jobs, high-commitment management) and extrinsic rewards (employment security, incentive pay), and giving employees maximum opportunity to contribute through broad jobs, self-management, and participation with sharing of power, information, rewards, and knowledge (Boxall, 2013; Lawler, 1986).

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The last three boxes in panel (b) are self-explanatory, given the preceding discussion. So, let's summarize. The question is: does the standard model in the literature lead to a prediction about the contingent effect of intensified competition on firms' choice of type of HRM system and practices? The answer seems yes and getting there provides an interesting extension and test of the model's logic. In panel (a) of Fig. 1, intensified competition erodes firms' financial performance and competitive advantage. To survive and prosper, their managers must devise a strategy which uses human resources to either increase revenue or lower cost. Theory based on RBV, AMO, human capital, and related ideas (panel b) and empirical evidence from HRM–performance regression studies (panel a) both point in the same direction. That is, performance and competitive advantage can be increased by shifting from a traditional system to an advanced HRM system suitably differentiated and fit to second-order context and contingency factors (Jiang, Lepak, Hu, & Baer, 2012). The logic of this chain of reasoning, therefore, leads to the hypothesis: intensified competition → more HPWPs/HPWS → higher performance. If this is not the logic of the mainline of HRM theory, then it is reasonable to ask: what is it?

4. Empirical anomalies

According to Kuhn (1962), a challenger to a well-established paradigm has to do two things. The first is to identify significant empirical anomalies which the paradigm cannot reasonably explain or, more powerfully, which contradict it. The second is to provide an alternative theory which can better explain these phenomena. The remainder of the paper follows these two tracks on the competition–HRM topic.

Identified below are five empirical anomalies with respect to competition–HRM. They are presented as short discussion points with suggestive evidence. The argument is not that these anomalies are unrecognized or ignored (a search of the literature can find one or more studies which in some way discuss every criticism or omission raised in this paper) but, rather, that they are inconsistent with or contradict the predictions of the model in Fig. 1 and thus indicate it needs significant revision at the basic framework level. Further, these five anomalies gain extra persuasive force because they are not stand-alone criticisms but mutually connect to the same core problem — that is, neglect of the logics of competition, profit-making, and open systems.

4.1. HPWS adoption anomaly

The prediction of the standard model is that in reaction to a more competitive economic environment firms should make a strategic decision to shift toward an HPWS and increase the breadth and depth of HPWPs over time. This decision may be incremental, slow in implementation, and initially taken up by only a leading edge of firms but, nonetheless, a reasonable expectation is that over 10, 20 or 30 years a discernible shift toward HPWPs and the HPWS should manifest. But, as Becker and Huselid (2011) note, the uptake seems surprisingly anemic and they therefore ask, “if the financial returns to HPWS are so substantial, why aren't there more firms using them?” (p. 423).

Survey evidence on HPWP/HPWS adoption, particularly of current vintage, is unfortunately scarce. American data show an upward trend in the 1980s and 1990s (Osterman, 2000). Even in the HPWS boom years, however, Pil and MacDuffie (1996) noted the “striking paradox” (p. 423) between the prediction that HPWPs should be widely adopted and the actual record of “slow and sporadic” implementation (p. 424). Edward Lawler has been researching high-involvement practices since their origin in the 1970s and he too notes this paradox, stating in a recent article, “decline in interest and implementation of EI [employee involvement] has happened at the same time as more and more evidence for the benefit of EI practices has accumulated” (Lawler, Benson, & Kimmel, 2013: 4). Blasi and Kruse (2006) report that a full HPWS is found at a miniscule number of firms, estimated perhaps as no more than 1%. They report that individual high performance practices are sometimes in the 30%–40% range. However, some of these HR practices are not identifiably unique to a HPWS. For example, nearly every one of the thirteen HPWPs used by Combs et al. (2006) in their meta-analysis is also identified by Foulkes (1980) as a personnel/organizational practice found in leading PIR firms of the 1970s.

These data sources and quotations are, on the one hand, suggestive and not definitive. On the other hand, if the standard HRM theory and empirical literature is reasonably on target one would surely expect more visible and widespread adoption of HPWPs and, in particular, HPWSs. Perhaps, as some studies argue (Lepak & Snell, 2007, particularly p. 221; Guest, 2011) the ‘more HPWP’ prediction applies more strongly (or only) to certain core workforce groups; likewise, researchers are increasingly counseling firms to practice a workforce differentiation strategy (Becker and Huselid, 2011). To an outside observer (the author) or skeptic of the HRM project (e.g., Thompson, 2011), the ‘HPWPs only/mostly for core employees’ caveat seems a major retreat from the expansive universalist claims earlier advanced (e.g., Huselid, 1995) and inconsistent with the original Theory Y (McGregor, 1960) and high-commitment formulation which emphasizes entire workplace transformation (work redesign and participative management only for the core group?) and elimination of differentiated cultures and reward/treatment systems (Beer et al., 1984: Ch. 7; PGW p. 198). Since the prediction of the economics-based model is that intensified competition leads on balance to HPWS erosion, fewer HPWPs, and breakdown of internal equity constraints, the ‘only/mostly core employees’ qualification/retreat is readily interpretable in that framework as growing supremacy of external market over internal organizational forces and concomitant downsizing of HPWPs.

4.2. Persistent high returns anomaly

The other side of the adoption anomaly is the persistent high returns anomaly. The estimated financial return to an HPWS is so large (a 30% increase in HPWPs leads, on average, to a 63% increase in return on assets according to Liu et al., 2007) that even executives and boards of directors who are totally unfamiliar with academic research on this issue would realize the ROI opportunity

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(described by Huselid, 1995 as "money for the taking") and jump on it — if for no other reason than their better-informed competitors are doing it and getting competitive advantage.

A basic theorem of economics and finance is that competition equalizes returns on reproducible assets. If management researchers discover a new value-creating process called total quality management (TQM), the high ROI attracts adopters and the breadth and depth of TQM spread across firms until its ROI is reduced to break-even. Interestingly, Becker and Huselid (2006) observe that the competitive whittling-away of excess returns is exactly what happened for TQM, per their statement, "The economic returns to product quality have dissipated over time as they have been factor price equalized" (p. 905).

The anomaly, therefore, is if competition reduces the return on TQM and other resources to break-even, why has it left the ROI on HPWS so large and unexploited? Becker and Huselid (2006) cite the trilogy "lack of knowledge," "managerial incompetence," and "inability to execute" (also see Huselid & Becker, 2011: 423, and Pfeffer's (1998) 'one-eighth' rule). But why are these three imperfections in the competitive process so specific and large to HRM and HPWS? Yes, one can agree that an integrated high-performing employee management system is complex and difficult to implement but probably no more complex than a company's information technology or financial management system. Indeed, HRM tools and skill sets are fairly standard and low-tech – a reason HRM has difficulty establishing itself as a bona fide profession (Wright, 2008) – and thus difficult to rationalize as a significant competition blocker.

The HRM theory response to this anomaly is the RBV and, in particular, its RIN part (McMahan & Harris, 2013). RIN makes an HPWS difficult to imitate and copy because of factors such as causal ambiguity, social complexity and path dependency and thus protects above-normal ROI (aka: economic rent) from competitive erosion. Although a plausible argument, it is again a fair question if these competitive impediments are sufficiently large and unique to HRM to explain the large and persistent ROI advantage of an HPWS. Another RBV-based argument is that human capital is inherently intangible and heterogeneous and, indeed, part of the RBV strategy is to deliberately invest in workforce differentiation (Barney & Clark, 2007). As before, this argument has a plausible component.

But also consider this implication. Competition erodes the ROI to break-even on all parts of an HRM system that can be copied or imitated; hence, above normal ROI resides only in those parts that are uniquely differentiated and cannot be acquired by rivals (like private information in an efficient market model in finance). The positive sign on the HPWP independent variable in an HRM–performance regression, therefore, is plausibly capturing the ROI from these unique non-reproducible and non-tradable elements. If they are unique and non-reproducible, however, they are also incapable of generalization. Thus, Connor (1991) wonders if HRM–performance type research turns into a contradictory effort at "generalizing about uniqueness" (p. 144) and, in the same vein, Becker and Gerhart (1996) question if the profit-generating part of an HPWS turns into an inscrutable "idiosyncratic contingency" (p. 794). One such contingency is uniquely superior management talent — such that without it many firms do not attempt an HPWS and many others fail at it. In this case, human capital (broadly defined) is still the source of high-performance but it is entrepreneurship and management quality, not HRM or HPWS per se, which the positive HRM regression coefficient is picking-up (Chadwick & Dabu, 2009). A counter response is that HRM has helped recruit, develop, and retain this superior entrepreneurial talent; however, the force of this argument viz. HPWS transformation is weakened because recruiting and developing high-level entrepreneurial/management talent has little linkage to the high-commitment/work redesign part of the original HPWS model, per discussion below.

4.3. New employment relationship anomaly

The HPWS rests on a long-term mutual investment and high-trust employment relationship in which firms provide superior compensation, training, and job security and workers reciprocate with superior organizational commitment, above-norm work motivation, and pro-social citizenship behavior (Tsui, Pearce, Porter, & Tripoli, 1997). However, this approach seems at odds with labor market trends and corporate employment practices over the last two decades.

It is widely said, for example, companies have shifted to a 'new employment relationship' which is in many ways opposite an HPWS (Cappelli, 1999b). For example, Tsui and Wu (2005: 116) state, "the new employment relationship is a quasi-spot contract… Employers… are interested primarily in a high level of employee task performance without requiring commitment… Additionally, employees do not expect the employer to provide long-term job security." Also incongruent is a two decade wave of corporate downsizings; erosion of internal labor markets; wage and benefit cuts; shorter job tenures and multiple employers; growth of temporary and contract jobs; and downsizing and outsourcing of the HRM function (Cascio, 2005; Jacoby, 2003). All of these developments undercut the norm of reciprocity that lies at the heart of the social exchange model embedded in HRM. Some high-commitment firms have swam against the downsizing and labor commodification tide (Ton, 2014) but it strains credulity and evidence to believe that upsizing of HRM and shift from an external/low-trust to internal/high-trust system have been the dominant trends at the majority of companies. Indeed, a direct implication of 'more competition' is that markets are more volatile and unpredictable which undercuts employers' ability to make and keep promises to workers (Thompson, 2003).

4.4. Design-participation-mutual-gain anomaly

The most innovative aspect of the original HPWS model (Boxall, 2013) is a combination of redesigned work system featuring enriched/broadened jobs and cross-functional training (reverse Taylorism), substantial use of self-managed teams, flattened organizational hierarchy and participative management (reverse command–control), and a mutual gain philosophy where in return for making the firm a top performer the employees get higher pay and job security (reverse 'doing as little as possible'). These features of a HPWS are still routinely cited in the literature (see Liu et al., 2007) but, as Wood and Wall (2007) note, the amount of article space and documentation given to these parts of the HPWS have noticeably dwindled in the academic literature. Perhaps, in this regard, the academic literature is silently mirroring the trend in these three HPWS components in real life companies?

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Evidence from the USA and UK indicates, for example, that self-managed teams are rare (Blasi & Kruse, 2006; Wood & Bryson, 2009), formal commitment to employment security is in steep decline (Cappelli, 1999b), and executive-managerial pay is racing away from the pay of employees lower in the hierarchy (Piketty, 2014). These empirical trends seem at odds with the core elements of the high-commitment HPWS, leading an outside observer or skeptic to wonder if the HPWS is an alluring but largely empty abstraction? Certainly more case study evidence would be helpful; for example, to what degree has Southwest Airlines, Disney, and Google adopted Theory Y work redesign, participative/self-management, and mutual gain practices? Thus, here again is an empirical anomaly, or certainly an empirical black box, which the HRM model in Fig. 1 seems challenged to explain. The theory predicts that intensified competition should cause firms to shift to more Theory Y management and transformed work systems yet little concrete evidence exists to support this proposition. Indeed, the evidence seems more consistent with the counter-hypothesis that intensified competition is reducing these practices (e.g., employment security) or giving them a win–lose character (e.g., broadened/enriched jobs = doing two people's work for the same pay) (Jones, Latham, & Betta, 2013).

4.5. Employment systems anomaly

Empirical studies find that firms sort into different types of employment systems. Delery and Doty (1996) distinguish between external/market and internal/development systems. A study of Silicon Valley firms identifies four systems: factory, engineering, star, and commitment; another study finds five, labeled: cost minimizer, resource maker, competitive motivator, contingent motivator, and commitment maximizer; and another one sorts firms into two broad categories: enabler/high road and coercive/load road (Barton, Burton, & Hannan, 1999; Toh et al., 2008: Orlitzky & Frenkel, 2005). As the names suggest, most are not commitment systems and some are largely antithetical (e.g., market, factory, cost minimize, coercive). These systems are differentiated by key HRM components, such as selection, compensation, training, and work coordination methods.

A paradox for HRM theory – described by Lepak and Snell (2007: 210) as an "interesting tension" – is how the HRM model pictured in Fig. 1 can at one and the same time account for the existence of multiple and sometimes incommensurate employment systems and yet predict that competitive pressure will cause most firms to gravitate toward an HPWS configuration (Boxall, 2013)? Is it really the case, for example, that firms located in the 'market,' 'factory' and 'cost minimizer' categories, such as Wal-Mart, Ryan Air, and McDonalds, will wake-up and realize they can make more profit by converting to investment-intensive and managerially-sophisticated HPWS practices? Instead, their performance lines in panel (a) may have only a short positive sloped segment and then peak-out and turn down; could be negatively sloped throughout, or could have been positively sloped a decade or two ago but have turned negatively sloped after competition forced large downsizings, wage and benefit give-backs, and erosion of employment security (Kaufman, 2010a).

As noted earlier, this anomaly can be resolved by narrowing the HPWS model to a (mostly) core group of employees. Alternatively, Lepak and Shaw (2008) suggest that the resolution is to recognize that alternative employment systems attain high performance through different routes. The first argument limits the HPWS to a potentially small domain of a firm's workforce while the second argument threatens to change the concept of HPWPs from a distinct set of high-commitment practices to 'whatever works best' practices, including PIR and sweatshop/low-road methods.

5. More competition and HRM: insights from an economics-based model

A challenger has to not only point out empirical anomalies but also present an alternative theory. Rather than start from scratch, this paper takes the economics-based 'HRM demand curve' model, originally proposed by Kaufman (2004) and extended in Kaufman (2010b) and Kaufman and Miller (2011), and uses it to (1) work out the predicted effects of greater market competition, (2) explain the empirical anomalies noted above, and (3) suggest reasons why both the empirical findings and theoretical model that anchor standard HRM may be poorly specified and biased. One noteworthy conclusion is the prediction that more competition may well lead, on balance, to less utilization of HPWPs.

5.1. HRM demand curve model

The HRM demand curve model treats HRM practices as a factor input to production, like capital and labor. It assumes that the objective of firms is maximum financial performance, measured by profit as a percent of capital. Since maximum profit and return on capital are also performance goals in the HRM model, the theories start off alike. The theories are also focused on the same level of analysis (the firm and the market competition it faces). Where they differ is in application of the competition and profit principles. The model is presented in simplified form and kept to one diagram; it is also explained in a way readily understood by HRM researchers not familiar with economics per se.

Chadwick and Dabu (2009) note that HRM is framed as a multi-disciplinary field but, in reality, is "based principally in psychology and lacking an organizational economics framework of analysis" (p. 253). The neglect of economics in HRM research leaves out rapidly growing and analytically developed bodies of research known as, respectively, behavioral economics, organizational economics, and the economics of personnel (see Gibbons & Roberts, 2013; Grandori, 2013); likewise, the RBV is anchored in competitive microeconomics (Barney & Clark, 2007). On multi-disciplinary, RBV, and business partner grounds, therefore, it seems a good idea to bring economics (like psychology) into the HRM research conversation. This suggestion fits with the recommendation by Becker and Huselid (2011) that "scholars will increasingly need to 'peer over the fence' into adjacent domains" (p. 427) to avoid what AMR editor Suddaby (2012) describes as the "balkanization of management research" into "self-constructed silos" (p. 7, 8).

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Profit, as noted earlier, is the difference between revenue and cost. Revenue comes from producing an output Q and selling it for a price P in a product market. In competitive product markets, the price P is determined by demand and supply and is a 'given' to the individual firm. Cost comes from the amount of inputs the firm buys to produce Q multiplied by each input's price. The inputs are physical capital, human capital (labor), and HRM practices. For expositional simplicity, from this point the terms HRM, HPWPs, and HPWS are frequently used interchangeably. To be able to use a two-dimensional diagram, HRM practices are treated as the variable input for a firm that has a given size of plant and workforce.

The essence of HRM strategy is to choose the level and kind of HRM that maximizes performance. The measure of the HRM variable follows the standard regression model pioneered by Huselid (1995) and specifies HRM as an index or composite measure of breadth, depth and sophistication of HPWPs. This measure is also the one Becker et al. (1997) use in panel (a) of Fig. 1 to plot the HRM–performance line. Thus, the index HRM starts at zero, again assumed for ease of exposition to represent a traditional control-bureaucratic-PIR system, and extends to 100%, a complete human capital/high-commitment HPWS system. The quantity of HRM rises if firms substitute a high performance practice for a PIR practice or if they expand the scale (size) of their HRM programs. The price (cost) to the firm of using additional HRM practices also has to be specified. It is labeled as V (not to be confused with value V in the RBV) and is incurred either by buying the HRM practice from an outside supplier (e.g. a training class purchased from a vendor) or from making it in-house (with staff, office space, supplies, etc.). Total cost of HRM is its price times quantity $= V \cdot HRM$.

The optimal HRM strategy maximizes firm profit performance $\prod$ by selecting the value of HRM which yields the largest difference between revenue and cost. Strategic HRM, therefore, means the manager chooses the value of HRM practices that maximize the equation $\prod = TR - TC = P \cdot Q - V \cdot HRM$. This conception matches Wright and McMahan's (1992: 298) oft-cited definition that SHRM is "the pattern of human resource deployments and activities intended to enable an organization to achieve its goals" and the statement of Barney, Della Corte, Sciarelli, and Arikan (2012: 113) that "strategy is a firm's theory of how it can gain superior performance in the markets within which it operates." (p. 298). In a world of bounded rationality, imperfect information, organizational politics and other such factors, managers necessarily grope and guesstimate to solve the equation (Baer, Dirks, & Nickerson, 2013); some managers get closer than others and some come up with completely different answers (strategies). (Note that strategy is the solution to the performance equation and can not therefore be an independent variable predicting performance in a regression.) Also, the model simplifies by assuming all parts of the production process, including HRM, take place in a single time period. Nonetheless, the logic of profit-making gives managers a decision rule to follow as best they can with various organizational carrots and sticks to incent compliance (e.g., stock options, termination). Although many managers intuitively know this decision rule, and all those who have graduated from college with a business degree have learned it, the rule and attendant focus on profit-making and ROI are nonetheless notably missing from the HRM literature. Illustratively, one of the few articles to incorporate an economics perspective is Barney and Wright (1998), stating, "we examine the economics underlying the role of human resources" (p. 32). These authors nonetheless omit the marginal decision rule and a HRM revenue vs. cost comparison. The stark consequence is that the conventional HRM model contains no model of managerial decision-making to guide strategic choice (a noteworthy exception is Cascio & Boudreau, 2012) and hence is forced to fall back on tautologies (like the RBV), such as firms should adopt the high-performance practices that are high-performing (e.g., Combs et al., 2006, p. 502).

The economics decision rule is: to maximize financial performance the firm should invest in more HPWPs as long as the marginal (incremental) increase in the revenue produced exceeds the marginal increase in cost incurred and when the two become equal performance is maximized and HPWP investment should stop. The extra revenue from a unit of HRM is called its marginal revenue product and is defined as $MRP_{HRM} = \Delta TR/\Delta HRM = P \cdot \Delta Q/\Delta HRM$. The extra cost from a unit of HRM is called its marginal cost and is defined as $MC_{HRM} = \Delta TC/\Delta HRM = V \cdot \Delta HRM/\Delta HRM = V$. The firm, therefore, maximizes performance and determines its optimal HRM bundle by expanding use of high performance practices until $MRP_{HRM} = MC_{HRM}$ or, equivalently, $P \cdot \Delta Q/\Delta HRM = V$. Since some-to-many firms choose a traditional control/PIR system with HPWPs = 0 (the assumed origin point in panel (a)), the logical inference for them is that $MRP_{HRM} < MC_{HRM}$ across the entire spectrum of HPWPs.

Because HRM theory does not incorporate this economics-based decision-rule, the field is put in the potentially disastrous business partner position of telling managers to engage in an open-ended 'more is better' expenditure program on greater breadth and depth of (appropriately fit) HPWPs (Kaufman, 2012). Lacking in this formulation are two potentially important qualifications. The first is an upward bound on the main effect, such that the optimal level of HPWPs is less than 100%. The second is incorporation of several key contingencies not given sufficient weight and attention, such as the technological nature of the production system and extent of unemployment in the labor market, which may turn the main effect of HPWPs from positive to negative over all or a portion of the 0% to 100% HPWs continuum (Kaufman, 2010a). Examples are HRM in a fast-food restaurant with high turnover and low-skilled labor and in a recession economy where the threat of job loss is an effective and much cheaper spur to desired employee behaviors. These lacunas are illustrated, for example, in the meta-analysis article by Jiang, Lepak, Hu, and Baer (2012). It presents fifteen hypotheses of the unqualified 'more is better' type, omits labor market and production technology contingencies to the main effect, and focuses on behavioral/internal determinants in the black box, and takes a closed system perspective (see their Fig. 3).

Although not developed here for reasons of space, the composite HRM variable can be disaggregated into individual practice parts for greater realism, such as HRM_1 = selection, HRM_2 = training, and HRM_3 = voice (Kaufman, 2010b, 2014b). The profit-maximizing level of selection, for example, is $MRP_1 = MC_1$ and for training is $MRP_2 = MC_2$. Also, the marginal product and marginal cost concepts can be modeled at the firm, group or individual level; for example, a high MRP of core employees means (ceteris paribus) greater value to the firm and a profit rationale for targeted HRM investment (Lepak & Snell, 1999). This decision rule can also be extended to calculate the optimal amount of individual HRM practices in a bundle, including incorporation of complementarities in order to determine optimal horizontal fit for the system (Kaufman, 2010b; Kepes & Delery, 2007). The decision rule for the

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three HRM practices is $MRP_1/V_1 = MRP_2/V_2 = MRP_3/V_3$. In words, this rule tells managers to adjust amounts of selection, training, and compensation so that the last unit of each yields the same revenue return per dollar of cost. This rule allows managers to take a system perspective which BHPS (p. 43) claim is the #1 priority for generating value from HPWPs. If two HR practices are complements, the equation guides managers in capturing this synergy because variation in one HPWP affects not only its MRP but the MRP of related practices (Laursen & Foss, 2003). Finally, the profit maximization objective (aka, shareholder wealth maximization) can be relaxed to make room for a stakeholder model with rent-sharing.

A common objection is that managers can't make these calculations. Of course, in any complex and forward-looking venture, such as hiring employees, taking a two week family vacation, or enrolling in graduate school, the decision-maker cannot fully or accurately measure marginal benefit and cost. Indeed, the fact that the MRP of additional HRM has a large long-run, intangible, and difficult-to-measure component is one reason firms underinvest in it (an insight of the model, not a defect). But because HRM benefit and cost are sometimes difficult to measure does not mean either researchers or managers should abandon profit-rational decision-making; rather, they should follow it even if in rough guesstimate form as the best compass-heading for HRM choices which are 'high performing' in the only metric which ultimately counts in capitalism — making enough profit for the firm to survive and grow. It is fair to say, to an outside observer, the lack of 'profit-thinking' in academic HRM research is startling (many articles do not mention the word), particularly for a business school subject which aspires to get a seat at the executive-level strategy table.

The final step is to translate the profit decision rule for HRM into a two dimensional diagram. See Fig. 2. The horizontal axis measures HRM/HPWPs and the vertical axis measures MRP and MC, both denominated in dollars. Three different MRP lines are depicted but for the moment focus on MRP_1. It plots the extra revenue the firm obtains by investing in one more unit of HRM. Assume, for example, that ΔHRM = a one day training class. If the training helps employees produce 20 extra units of the good and each unit sells for $10, then the MRP = $10(20) = $200. The MRP concept gives concrete representation to HRM's value-creation dimension. It also readily incorporates the AMO link to performance that is a central component of the standard HRM model. That is, $MRP = P \cdot \Delta Q/\Delta HRM = P \cdot (\Delta Q/\Delta AMO \cdot \Delta AMO/\Delta HRM)$. The marginal product term can also be made a function of specific behavioral elements, such as discretionary effort, reciprocity norm, extrinsic vs. intrinsic motivation, and commitment strength (Charness & Kuhn, 2011; Fehr, Goette, and Zehndar, 2009; Kaufman & Miller, 2011).

The line MRP_1 slopes upward, reaches a peak, and then declines. The upward sloping portion is where HRM yields increasing returns in production; that is, each additional unit contributes more to performance than the previous one. The downward sloping portion is the area of diminishing returns where an extra HRM unit still increases performance but not by as much as the previous unit. For example, the MRP line slopes up if the second day of training leads to ΔQ = 25 and the third day results in ΔQ = 30. If the fourth day of training yields only ΔQ = 26 and the fifth day yields ΔQ = 10, diminishing returns has set in and the MRP line slopes down. Although an empirical issue, the presumption that training – or, alternatively, hiring tests, performance evaluations, team meetings, or entire HR program – at some point encounter diminishing returns seems reasonable. Even with cross-practice synergies this conclusion remains valid.

Firms have an HRM function (although not necessarily an HR department) and use HPWPs because they add value, relative either to no HPWP expenditure or expenditure on an alternative method such as PIR. However, firms also know that HRM expenditure adds to organizational costs, certainly relative to the case of no expenditure and probably relative to the cost of a PIR practice. Every additional unit of HRM, such as calling references of job applicants, giving employees more training, and conducting 360 degree performance evaluations, requires time, resources, and money. As a concrete example, Liu et al. (2007) discuss ten HR practices which have a consistent positive effect on firm performance, thus qualifying them as HPWPs. Evident from their discussion is that going

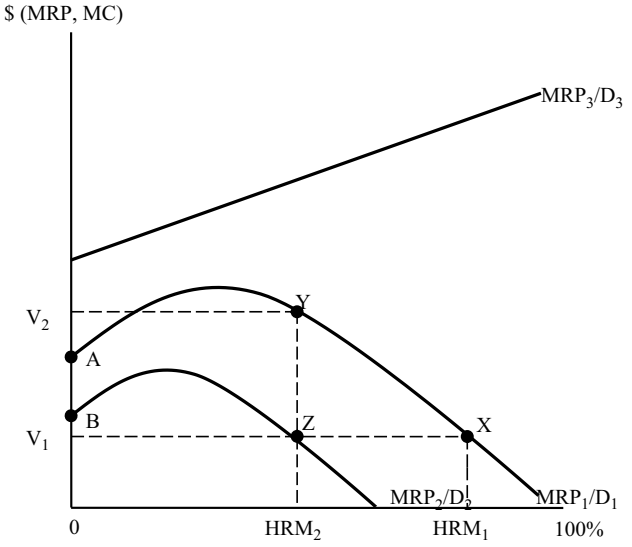

Fig. 2. HRM demand curve model.

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from low-to-high in each HPWP entails extra resource cost. Illustratively, they say that performance rises with "being selective" – with an implicit 'more selectivity is better' connotation – which entails "using-state-of-the-art selection processes," such as "structured interviews, cognitive aptitude and ability tests, and follow-up studies of recruiting sources" (p. 506). Similarly, they find that performance rises with greater use of training, compensation level, employment security, promotion from within, and employee participation. Expanding use of each practice entails higher organizational cost, such as more formal and technologically advanced instruction, higher pay level, avoiding layoffs in slack periods, and more off-line time for group employee meetings. Possibly in some individual cases an HPWP may cost the same or even less than the equivalent PIR method (e.g., a 15 minute selection test vs. a day of one-on-one interviews), but the general case for HPWPs in the literature is not based on the fact that they are cheaper but, rather, they are more productive and value-creating (Barney & Wright, 1998; Becker & Huselid, 2006).

The standard model is noticeably asymmetric in its treatment of HRM because it explicitly features HRM's operational and financial benefits but gives no similar attention to the cost side. This asymmetry is evident in the BHPS model in panel (b) of Fig. 1. The operational and revenue benefits of more HRM are highlighted. For example, the model's sequence of boxes shows HRM System → Productivity → Improved Operating Performance → Profit and Growth. However, no equivalent set of boxes is included for the cost side; for example, HRM System → Higher Selection, Training, and Benefit Expenditures → Greater Fixed and Variable Labor/Administrative Cost → Lower Profit and Growth (ceteris paribus). The same omission is found across the eleven diagrams in Paauwe et al. (2013). These HRM practice costs, it is true, are captured in the financial performance number firms report at the end of the year and which the standard model uses as the dependent variable. Importantly, however, the model leaves unspecified in the black box of managerial decision-making how firms successfully optimize the dependent variable when it only alerts managers to consider the benefit side of HRM and (mostly) not the cost side. (For an exception, see Patel & Cardon, 2010).

The logic of profit says the firm should add extra HRM as long as MRP > MC. As drawn in the diagram, the MRP_1 curve is above the MC dashed line for every unit of HRM before HRM_1 and thus each unit adds to profit performance. The decision rule says to stop when MRP = MC and this happens at HRM_1 where the two lines intersect (point X). Total profit from HRM is the area between the curved and horizontal lines, V_1AX. That is, Total Revenue from HRM_1 can be geometrically calculated as the sum of the marginal revenue contributions of each individual unit (starting at the origin and going to HRM_1) which equals the area $0AXHRM_1$. Total Cost is the geometric area $0V_1XHRM_1$ and, accordingly, profit is the difference between TR and TC and equals V_1AX. Dividing V_1AX by the dollar value of the firm's invested capital (K) yields the ROI of HRM.

The MRP curve is also the firm's input demand curve for HRM, indicated by the MRP/D notation. A demand curve depicts the relationship between price and quantity demanded, other things given (e.g., technology, employment size, business cycle). If the price of HRM is V_1, the MRP_1 line shows the firm's demand for HPWPs is HRM_1. Firms which use a PIR system have a zero demand for HPWPs, indicating that the MRP_{HRM} line is everywhere below the marginal cost V_1. By the law of demand, if the price of HRM goes up (e.g., the cost of one day of training rises from $150 to $225), the firm is led to economize on HRM by using less of it. In panel (a), the higher price V_2 intersects the demand curve MRP_1/D_1 at point Y and the firm cuts back on HRM from HRM_1 to HRM_2. Hence, variations in price of HRM cause a movement up and down the demand curve. A change in any other variable that affects HRM demand, such as new information technology, business recession or health insurance law, causes the MRP/D line to shift right (more demand) or left (less demand). In a prosperous/low unemployment macroeconomic environment, for example, the model predicts more HPWPs (P ↑ so demand curve shifts rightward) and less HPWPs in a recession/high unemployment environment (P ↓ so demand curve shifts leftward). [The skeptical reader should try to work out these contingent effects using Fig. 1, illustrating that RBV, AMO, and strategy are weak viz. generating testable hypotheses for researchers and actionable but discriminating guidance for managers.]

Having set-up the model, the next step is to use it to derive new predictions and implications and resolve existing anomalies.

5.2. More HPWPs are not always better

The first use of the HRM demand curve model is to reconsider the 'more HPWPs' hypothesis. Toward this end, it is helpful to first translate several key assumptions of the standard model in Fig. 1 into the HRM demand curve diagram in Fig. 2.

The HRM–performance line in panel (a) slopes upward, reflecting the positive coefficient on the HRM variable in a Huselid-type regression; that is, ΔProfit/ΔHPWPs > 0. If profit rises with additional spending on HPWPs, it must be the case that MRP > MC. If the non-linear segment in the middle is also smoothed, then MRP > MC from HRM = 0% to HRM = 100%. In Fig. 2, this result happens if the MRP schedule is the upward sloping line MRP_3/D_3. The premise underlying D_3 is that high performance work practices experience increasing returns throughout, which implies that each extra unit of an HPWP leads to a larger increase in, say, AMO than the previous unit which therefore leads to a larger increase in production and firm performance.

The line MRP_3/D_3 is a representation of the positive main effect from regression studies. The main effect may arise from the fact HPWPs become progressively cheaper to implement relative to equivalent increments in PIR although, as noted earlier, this kind of cost advantage argument is rarely advanced to justify HPWPs. Instead, the case for HPWPs is they have a value-creation (MRP) advantage over traditional methods and, in turn, the 'more is better' proposition asserts this advantage increases with additional HPWP investment, such as shown by line MRP_3/D_3. An example emphasized by BHPS is that greater resource investment in HR system integration yields a progressively greater MRP advantage over a PIR individual practices approach.

The next step is to determine the optimal level of HRM. If marginal cost is the V_1 dashed line and the demand curve is D_3, the two lines never intersect and profit grows all the way to the end point of 100% HPWS. The implication, as noted above, is that HRM input demand has no intermediate stopping point and optimal HRM = 100% HPWS. Contingent and contextual variables make the slope of D_3 flatter or steeper or, alternatively, shift D_3 up or down, leading to second-order differentiation in HRM architectures. Inertia, ignorance and incompetence, in turn, slow the movement up the line to HPWS. As long as the negative effect of these factors is smaller

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than the positive main effect, the optimal HRM investment is still 100%. Kaufman (2010a) distinguishes the two possibilities as, respectively, "weak contingency" (positive main effect dominates) and "strong contingency" (positive main effect reversed). HRM studies almost always assume weak contingency.

A second reason suggests why 100% HPWS may not be the firm's best strategy. A problem with the standard model, as earlier noted, is that it gives scant attention to the other side of the profit equation — the cost of more HRM. Even if the marginal value creation of HRM declines due to diminishing returns, by ignoring cost it is still possible to conclude 'more HPWP is better' and optimal HRM = 100% HPWS. For example, assume the marginal cost of HRM is zero. The MRP schedule is barely above zero at 100% HRM, indicating the return to the last unit is very small. Yet, if MC = 0 then MRP > MC and 'more HPWPs is better' all the way to 100% HPWS.

This asymmetric treatment of benefits vs. costs arises, in part, because writers have tried to distinguish HRM as a value-creation approach vs. traditional PIR as a cost-focused approach. Illustratively, Liu et al. (2007) state that the emergence of the HRM field in the 1980s signaled that "organizations should discontinue the historical practice of considering employees as costs, rather than as vital sources of revenues and profits" (p. 503). A reasonable reading of this statement is that HRM practitioners should focus on using HPWPs to create more revenue and leave a cost focus to personnel/IR — thus rationalizing the scant attention to cost in the standard model (Jiang, Lepak, Hu, & Baer, 2012). The challenger claim made here is that this practice leads to potentially strategic-size prediction error in HRM theory and skewed and performance-draining HRM investment decisions.

5.3. More competition and HRM

The central question motivating this paper is the effect intensified market competition has on HRM adoption. The economics-based demand curve model provides an alternative way to think through the issue.

More competition, as earlier discussed, means individual firms face greater rivalry in product markets. Before globalization, for example, demand/supply in the auto market let an American company, such as Ford, charge a certain price and produce a certain volume. After Toyota, Honda, and BMW enter the market, total auto sales in the US increase but Ford and the other American companies likely suffer a decline in individual sales, have to cut back production, and are induced to lower prices. Thus, when a company experiences more competition its typical response is P↓Q↓ — exactly what a Porter (1980) positioning strategy tries to avoid or minimize. The product market also becomes more volatile and uncertain as competition increases, making long-term employee investments, structured internal labor markets, and internal development programs riskier with less pay-off.

In light of these adverse market developments, what is the firm's best HRM strategy? In Fig. 2, assume the focal firm has HRM demand curve D_1 and has chosen HRM_1 (point X). Now introduce more competition. An insight of the model is to identify two cause–effect channels through which more competition operates; that is, either by changing HRM's contribution to revenue (MRP) or its impact on cost (MC). We know $P \cdot \Delta Q/\Delta HRM = V_1$ at point X. Since more competition in this context is a product market phenomenon, it does not directly impact the cost side of HRM (as a useful first approximation) and therefore V_1 does not change. Instead, more competition affects HRM strategy as it operates through the value creation channel. In particular, more competition means P↓ and Q↓ and, hence, MRP ↓. When MRP↓ due to a change in an exogenous variable (competition), it is represented in the diagram by a leftward shift of the demand curve, such as D_1 to D_2. When HRM has less value creation, it makes business sense to cut back on it, represented by the shift from D_1 to D_2 and reduction in HRM practices from HRM_1 to HRM_2 (from X to Z at the same cost V_1). Optimal HRM falls because (1) the lower price reduces the value created by each unit of HRM and (2) the lower sales quantity reduces the scale of production and employment in the firm (elements missing from Fig. 1).

The standard model and demand curve model yield opposite predictions. The conventional HRM model predicts more competition leads to increased breadth and depth of HRM and the demand curve model predicts a decrease. The HRM study that most explicitly tests this hypothesis is Patel and Cardon (2010). Their results overall support the 'less HRM' prediction of the demand curve model. Summarizing the empirical findings, they state "Our study suggests that when small firms are faced with high levels of product market competition – absent group culture – they are *not likely to adopt many HRM practices*" (p. 281, emphasis added).

This conclusion is reinforced by considering several of the empirical anomalies discussed earlier, such as anemic HPWS adoption and new employment relationship. The standard model predicts firms move upstream toward an employment system featuring stronger internal labor markets (ILMs) – per RBV strategy of creating rents from internal development, differentiation, and path dependency and AMO strategy of creating a more skilled and motivated workforce – while the demand curve model predicts a downstream movement with erosion of ILMs and more reliance on external labor markets (ELMs) to motivate and acquire human capital (e.g., motivate through threat of job loss and hire needed skills from a well-stocked ELM) (Nordhaug, 2004). Likewise, in the standard model as firms move to an HPWS they provide stronger employment security with enriched jobs and greater in-house training; the demand curve model predicts less employment security, jobs 'enriched' by greater work load, and shifting of training cost to workers.

It is worthwhile to ask: is there any scenario with the demand curve model where more competition causes firms to adopt more HPWPs? The answer is a qualified yes but arises from three contingency channels not included or well-identified in the standard model but which the logical framework of the demand curve model helps identify and work out. [Again, skeptical readers should try to work out these implications with Fig. 1.]

The first channel is entrepreneurial innovation and technological change in HRM (Chadwick & Dabu, 2009). Assume, for example, that PIR is the only system of people management known to companies. Firms have a PIR demand curve but no HRM demand curve (HPWS has yet to be discovered). A virtue of a market system is that competitive pressure spurs an entrepreneurial discovery process, including search for more productive ways to structure organizations and manage people. Hence, at some point through research and managerial practice the HPWS is discovered and operationalized. If it creates value (not all innovations do), an HRM demand curve appears in Fig. 2. If the demand curve is D_1 and the unit cost is V_1, optimal HPWP adoption is HRM_1. Thus, in this case it is correct

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to say more competition → more HPWPs but the mediating channel in the black box connecting the two is not the standard RBV/AMO/human capital story but entrepreneurial discovery and technological innovation.

The second source is similar except it stems from entrepreneurial discovery and technological change in product markets. Competitive pressure also spurs a search to bring in new customers, such as through new products, marketing programs, and lower-cost manufacturing processes. As an example, Apple invents the iPad and Starbucks expands its menu with new Frappuccino drinks. If these products are successful in the market, the product demand curves for Apple and Starbucks shift to the right, with more sales they need more workers (labor demand curves shift rightward), and the companies expand with perhaps new facilities, divisions or business units. The demand for HPWPs may increase, perhaps because HPWPs are more effective in larger-sized organizations or the production systems for the new products have features which make HPWPs value-creating (e.g., large worker interdependencies, complex skills and tacit knowledge). If such is the case (the opposite could be true), it is again correct to say more competition → more HPWPs and, also, to emphasize the role of human capital. However, the expansion of HPWPs is an *induced* consequence of competition through the product market and the root source of Apple's and Starbucks' higher performance is *not* the HRM system or adopted HPWPs but the entrepreneurs who devised the new products and the executives/managers who successfully orchestrate the production, marketing, finance, and human resource components of the new venture. Obviously success depends on a well-planned and implemented HRM program but, nonetheless, HRM in this case is largely a *support function* and getting HR executives 'at the table' may not be value-creating until later in the implementation stage.

The third channel is disequilibrium and lagged adjustment in HPWP adoption. Without cost of adjustment, once firms know about the value-creation payoff of HPWPs they immediately adopt them. Thus, at the time of discovery firms have not adopted HRM and profit potential exists, leading to $\Delta\text{Performance}/\Delta\text{HRM} > 0$. If adjustment costs are negligible-to-zero, firms quickly adopt HPWPs (e.g., going from zero to HRM_1 in Fig. 2), profit on HPWPs swiftly erodes to break-even, and the main effect drops to zero. One explanation for the positive main effect, therefore, is that it takes considerable time for firms to incrementally reach the HRM_1 performance maximum. For example, assume firms have only reached HRM_2 (point Z); in this case, MRP > MC and increasing HRM usage leads to higher firm performance. However, note that the positive HPWS effect exists only in this gap area and only for the length of time it takes firms to move from HRM_2 to HRM_1.

Here emerge a number of insights and corollary hypotheses. First, the model highlights an explanation not well distinguished but actually key to the literature's maintained positive HPWP → performance and more competition → more HPWP effects. That is, intensified competition causes managers to accelerate organizational change which more quickly adds HPWPs and closes the HRM_1–HRM_2 performance gap. Second, the positive HRM effect is a transitory disequilibrium phenomenon because it lasts only as long as the performance gap remains. Third, the increase in firm performance from closing the HRM gap arises from improving operational effectiveness (moving to the best practice frontier) so the firm is at competitive parity and not from strategic value-creation and attainment of competitive advantage (Chadwick, Ahn, & Kwon, 2012). Fourth, the model gives a more convincing explanation for the HRM gap, not centered on unmeasurable and untestable factors such as managerial ignorance, inertia, incompetence, social complexity and causal ambiguity, but systemic organizational and market failures, such as prisoner dilemma traps, the rented nature of human capital, and under-investment from managers' inability to fully identify HRM's long-run MRP (Kaufman, 2012; Miller, 1991; Wilkinson & Mellahi, 2004). Fifth, an implication of the three contingency channels discussed above is that not only would HRM research substantially benefit from greater attention to economics but also entrepreneurship and leadership (channels #1 and #2) and organizational change (channel #3). Paradoxically, the organizational change literature is large and developed, well fits the internal/behavioral emphasis in HRM, was given much emphasis in early SHRM (Beer et al., 1984), and yet gets relatively little attention as researchers burrow ever-deeper into the psychology of the black box (Godard, 2014). For example, 'organizational change' gets zero index citations in the PGW volume while 'commitment' gets 18 citations covering a total of 64 pages.

5.4. More competition and ROI

The demand curve model also explains the ROI anomaly. In the standard model, as firms adopt an HPWS they move up the performance line (Fig. 1) and earn a higher ROI. The problem, however, is that this model neglects the effect of competition on ROI. That is, the standard model assumes the performance line is a stable relationship firms can climb up; actually, as more firms adopt HPWPs the line rotates and becomes flatter, the ROI from HPWS diminishes, and the process continues until, in a purely competitive economy (the initial condition in the RBV), the line becomes horizontal at the break-even rate of return (competitive parity). The demand curve model illustrates this process in action.

Assume in Fig. 2 the firm has the demand curve D_1 and, given V_1, it chooses the bundle HRM_1. Also assume that HRM_1 is composed of many integrated HPWPs and yields a high return, say 20%. As earlier described, a high return means the profit area V_1AX is large.

Entrepreneurs again enter the picture, in this case because the availability of above-normal profit spurs them to switch to HPWPs. The first group of HPWS adopters enjoys competitive advantage and significant profit margins but, gradually, the entrance of more HPWS firms leads to downward pressure on prices and shrinking profit margins. The decline in their prices shifts the HRM demand curve leftward, profit and return on capital fall, use of high performance HRM declines, and the process continues until the profit area under the demand curve contracts to a break-even ROI. Although one frequently reads the criticism that traditional HRM methods "don't add value" (PGW, p. 1), this statement confuses total vs. marginal value contribution. At the point X equilibrium, HRM contributes V_1AX of total value (revenue above cost) but the marginal addition is zero.

The end result is that market competition gradually redistributes the superior productivity of an HPWS from above-normal rents earned by a pioneering minority of advanced firms to the mass of consumers in the form of lower prices and a higher standard of

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living. Firms, of course, want to protect their superior rents and so endeavor to impede or block the forces of competition. The RBV provides one strategy to accomplish this objective.

5.5. The RBV and more competition

The resource-based view of the firm, AMO-behavioral theory, and human capital concept are the central pillars of the conventional HRM model (Jackson, Schuler, & Jiang, 2014). The RBV needs additional attention because its explicit purpose is to develop a strategy that protects the high ROI of an HPWS from competitive erosion. Also important, the HRM literature tends to omit important economic underpinnings and implications of the RBV which have adverse implications for the standard HRM–performance model.

HRM practices are recognized as relatively generic and easy to duplicate and, therefore, cannot typically be the basis of competitive advantage (Wright et al., 2001). Hence, although more HRM → greater AMO → higher firm performance, because of competitive imitation by rival firms this gain will be quickly eroded. The solution advocated in the literature (Becker & Huselid, 2011; McMahan & Harris, 2013) is to protect HPWS rents through application of RBV principles, such as internalization of employment, development of unique firm-specific skills, and immobilizing employee training and benefits.

Bowman and Ambrosini (2000) point out that in applying RBV logic one must carefully distinguish between attaining competitive advantage through *rent creation* vs. *rent capture*. This combination is done through VRIN. However, Barney acknowledges that the RBV does not actually explain value, stating, "the question of value is exogenous to resource-based theory" (Barney & Clark, 2007: 253). In the HRM model, therefore, the creation of organizational rents through the value (MRP) side is principally done by AMO (not a theory but a classification), with complementary human capital, capability, and knowledge insights, and the contribution of the RBV is to capture and protect the rents through RIN. RIN tactics do this by impeding competition for, as Barney (1991) observes, if input markets are perfectly competitive then input owners are able to capture the full value of their contributions and firms are left at competitive parity (i.e., a horizontal performance line).

These ideas can be represented in Fig. 2. Assume the firm adopts a high level of HPWPs, such as HRM_1 (point X). By assumption, these HRM practices boost AMO and create above-competitive profit, illustrated by a large profit area V_1AX. The presence of this large profit induces other firms to try to duplicate the focal firm's HRM system. If successful, they become more potent rivals, take market share from the focal firm, and cause P↓Q↓. The MRP curve of the focal firm shifts leftward until the profit area shrinks to break-even. One way to prevent competitive dissipation of rents, per Porter (1980), is to use product differentiation, economies of scale, mergers and acquisitions, and other competition-blockers to raise price and quantity in the product market. Higher P and Q ripple into the HRM function, make HRM practices more value-creating, and shift the MRP_{HRM} curve to the right.

Here emerge several important insights. The first is that the conventional performance regression (Gerhart, 2013; Huselid, 1995) produces an upward-biased estimate of the HRM effect on performance due to commingling of causation and association. Note that the increase in HPWP usage from a Porter strategy (and entrepreneurial innovation, as discussed above) comes from an increase in P and Q and thus represents an *indirect* boost to HPWP value created by non-HRM factors, such as a new marketing campaign, an innovative product design, or strategic alliance. These organizational actions have created the larger profit opportunity through the dual levers of higher revenue and lower cost and induce growth in the HRM function to the extent the higher price and quantity boosts the function's MRP and increases demand for its support service input (e.g., because more sales → more employment → more HRM). In this situation, the performance regression generates a positive coefficient on the HRM independent variable but this relationship is from association and not causation — unless one wants to go to the extreme and tautological position that any act of value-creation by an organization's people is in the end attributable to the HRM system.

The implication is that the larger the value-creation contribution of other components of the organization the larger is the induced growth and expansion in HRM, leading to a progressively inflated estimate of HRM's causal impact on firm performance. Here is one explanation why empirical studies find such large – almost unbelievably large – positive HRM effects on performance and, also, why contingency effects may be masked in the data. The possibility of this type of spurious correlation in cross-section studies is well-recognized and discussed and the few empirical studies to investigate it (e.g., Wright et al., 2005) have found supportive evidence. The contribution of the model presented here is to provide a theoretical framework which, unlike the conventional model in Fig. 1, pinpoints the origin of the problem and highlights its likely ubiquity and seriousness. One source is reverse causality where instead of ΔHRM → ΔPerformance the relation is ΔPerformance → ΔHRM, such as happens when the product price P rises, the HRM demand curve shifts rightward, and HRM usage increases. A second source is omitted variable bias, such as when a demand curve shift variable is omitted from the regression equation (e.g., extent of interdependencies and team effects in the firm's production system) and this variable has a positive correlation with HRM.

Another insight is that using the RBV to gain performance and competitive advantage may devolve into a strategy tantamount to labor exploitation. Part of the way an RBV strategy increases firm performance is by using RIN to create competition-blockers in input markets; in effect, a strategy of labor market positioning. The most recommended tactic is to shift from general to specific human capital (Coff & Kryscynski, 2011; Messersmith et al., 2011). Since general human capital is productive at rival firms, workers can use the threat of exit to bargain for a wage equal to the productivity contribution of their human capital, leaving the firm with zero rent. Specific human capital is productive only at the focal firm and the employee loses the ability to use the threat of turnover to bargain-up the wage to the full MRP value. Crook, Combs, Todd, Woehr, and Ketchen (2011: 444) observe, for example, "Firm-specific human capital… makes it difficult for employees to demand compensation that is commensurate with their full value to the firm" and Wang and Barney (2006: 466) observe, "Once employees make firm-specific investments, firms can systematically extract wealth from these

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employees, and employees have few ways they can protect themselves." Specific human capital also bonds workers to firms and reduces turnover.

The RBV-created wedge between the worker's MRP and wage, described by Coff and Kryscynski (2011: 1431) as an "economic discount," increases firm profit and performance through rent capture. That is, immobilizing devices bond workers to firms and, as the quotations above make clear, part of the purpose is to increase firm performance by lowering compensation for labor and shifting it to higher ROI for owners and shareholders. This situation in labor economics is modeled as a case of imperfect competition known as monopsony (Manning, 2003). Monopsony is where impediments to worker mobility provide the firm with opportunity to pay less than in the case of full competition. Salary compression for immobile professors is a classic example. Monopsony power in labor markets is the mirror image of monopoly power in product markets — the former exploits workers by paying a below-competitive wage and the other exploits consumers by charging an above-competitive price.

The situation is complex, however, because specific human capital also gives employees some leverage; for example, if they feel exploited and quit then the firm loses its training investment. Hence, employees have some bargaining power (a form of bilateral monopoly) and self-interest leads the firm to balance the profit from under-payment vs. the profit of sharing part of the rent to prevent turnover and its attendant costs. An RBV strategy, therefore, creates an interesting mix of incentives for firms to practice both rent-capture and rent-sharing with employees. A straight-forward interpretation of the positive slope of the HRM–performance line, however, is that (ceteris paribus) the rent capture side dominates. If firms overreach on short-term rent capture, say because of Wall Street pressure, they risk destroying the mutual gain and unity of interest psychological contract which is fundamental to successful HPWS and represents the taproot idea for the birth of HRM in the early 1980s. If pushed too hard and unilaterally, therefore, higher performance through RBV rent capture can, as in the 1930s, backfire into labor recalcitrance, strikes, union organizing, more labor laws, and a tarnished image for HRM.

One final implication remains concerning competition and the RBV. Assume for sake of argument that issues of causality and omitted variable bias are moot and we can accept at face value the statement of Becker and Huselid (2011) that, "the primary conclusions from this line of research have been that the financial returns to investments in high-performance works systems (HPWS) are both economically and statistically significant" (p. 422; also see Wright et al., 2005, p. 34). This statement reasonably encapsulates in one sentence the core theoretical and empirical proposition of the SHRM research stream over the last twenty years. Barney calls this kind of statement a "rule for riches" (Barney & Clark, 2007: 237), meaning it gives managers a guideline for making money. Paradoxically for HRM, however, Barney declares "as is well known, there cannot be a 'rule for riches'" (Barney et al., 2012: 137, emphasis added). His reasoning, an application of the factor returns equalization theorem in competitive markets (earlier described), is that if Becker and Huselid's claim is correct then profit-rational entrepreneurs implement their advice, adopt more/better HRM, continue to do so until the return is driven to zero, and hence negate the rule for riches. [Note: this conclusion does *not* imply HRM or people management is unimportant, since if not well done the profit area V_1AX in Fig. 2 shrinks below break-even and the firm heads toward bankruptcy; rather, the conclusion is that without some barrier to competition, such as provided by RIN, extra/better HRM cannot provide either higher performance or competitive advantage — these two terms being distinct and non-commensurable but nonetheless frequently conflated in the literature.]

Thus, I end this article by observing that the central theme of this paper – that omission of the logics of competition and profit-making create fatal flaws in HRM analysis and inclusion of these logics likely reverses key propositions – cannot be easily dismissed as economic imperialism, overly simplistic competitive theorizing, or outside the management field because these logics and conclusions are *built into the RBV* which SHRM scholars claim is the field's guiding paradigm.

6. Conclusion

Theories and models are useful tools for explaining and predicting empirical phenomena although, since they are abstractions, none can capture everything of importance. Nonetheless, the value of a theory or model increases in parallel step with its ability to generate logically sound hypotheses and operationally meaningful insights from a parsimonious structure which accord well with empirical data and practical experience. The author's contention is that the standard HRM model, as summarized in Fig. 1, gets a relatively low score on these counts – certainly on the competition–HRM subject but also more broadly viz. the broader topic of HRM and firm performance – while the alternative economics-based model, as presented in Fig. 2, does significantly better. The point in stating this thesis is not to promote economics over management but to advance better disciplinary balance, stronger theory, and useful tools and findings for managers.

This paper does not assemble data and estimate regressions to test the empirical congruence of one model vs. another. The prediction is offered, however, that when such is done the evidence will, as a statement of central tendency and with due recognition of moderating contingencies, support the HRM demand curve model. Such a finding would bolster the argument that management researchers in HRM need to give more attention to economic theory, market forces, and ROI, as Balderston (1935) suggests in the epigraph to this article and has long been a staple of the industrial relations field (Kleiner, Block, Roomkin, & Salsburg, 1987). Considerably more important, however, is that if the demand curve model better captures empirical reality then significant parts of HRM textbooks, journal research, and management guidance need significant revision – starting with the core 'more is better' proposition. This conclusion may help explain another anomaly – why HRM practitioners so seldom pay attention to academic research and implement its findings (Rynes, Gulik, & Brown, 2007). The claim of this paper is that if Fig. 1 is replaced by Fig. 2 both managers and researchers will find HRM theory and empirical analysis more useful.

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