Incorporating strategy and business model into HR planning: A systemic design approach

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Keywords
business model, human resources, strategy, systemic design

Abstract

Purpose. *The purpose of this paper is to present a theoretical argument for the use of systemic design methodology (SDM) in human resources planning, to establish value that is rare and difficult for competitors to imitate.*

Methodology. *The authors reviewed relevant literature on HR planning, strategy, business model, and SDM.*

Findings. *Based upon this review, the authors propose that HR planning can incorporate competitive strategy and business model in a rare, valuable and inimitable way, by using SDM.*

Originality. *This study merges two theories: the Resource-Based View (RBV) of the Firm and Systemic Design Theory, in order to create unique HR solutions that have lasting value.*

Study implications. *Propositions suggest that HR Planning can provide more unique value by using SDM, which satisfies all requirements of RBV.*

Introduction.

Since the 1980's, human resources (HR) practitioners and scholars have argued that HR practices should be arranged to help organizations achieve performance goals and business outcomes (Buller and McEvoy, 2012; Schuler and Jackson, 1987). This argument is rooted in the concept of the resource-based view (RBV) of the firm espoused by Jay Barney (1991). RBV posits that a resource will be valuable to a firm, to the extent that the resource is rare, valuable, and difficult to imitate. Because a high performing workforce is rare and consists of socially complex resources such as trust, culture, and teamwork, HR practices are argued to fit Barney's description (Colquitt, Lepine, and Wesson, 2023). HR practices include areas such as recruiting, training, compensation, benefits, employee engagement, performance management, diversity and inclusion, and organizational design.

Together, these practices comprise the HR plan, which "outlines an organization's approach to managing its human resources to meet current and future business objectives" (Dessler, 2012). HR effectiveness is achieved when the planning process integrates appropriate HR practices that align with business goals and maintain internal consistency. HR effectiveness has been measured as the strength of the relationship between the HR plan on the one hand, and organizational efficiency and revenue growth on the other (Becker and Gerhart, 1996).

Rooted in RBV, scholars have posited that HR effectiveness will be greater when practices are aligned to support specific business strategies (Buller and McEvoy, 2012; Schuler and Jackson, 1987, Takeuchi, 2009). Strategy has typically been construed as the way the firm distinguishes itself from its competition, as outlined by Michael Porter (1986). This consists of strategic types such as cost leadership, differentiation, and focus. Cost leadership focuses on providing a product or service at the lowest price in one's industry; differentiation consists of providing innovative products and services that stand out for consumers, justifying a higher price. The focus strategy is centered around a niche market, such as a particular region, segment, or customer base. The focus strategy may be combined with the first two; for example, a tool manufacturer may build tools that are both highly innovative and focused on a particular client base, such as commercial construction companies.

Aligned to one or more of these strategic types, HR practices shape the direction, persistence and intensity of employee motivation and effort (Colquitt et al. 2023). For example, American Express (AMEX) uses a differentiation strategy which emphasizes exceptional customer service (Pulliam, 2025). This strategy requires AMEX to pay customer service representatives highly compared to the market, and to invest in training that focuses specifically on enhanced customer service. This, in turn, attracts a higher-paying clientele, generating greater revenue.

While there has been a gradual increase in the use of HR practices to support strategy (Takeuchi, 2009), HR practitioners often perceive that their function is still too heavily focused on clerical and administrative tasks (Bailey, Yeoman, and Madden, Thompson, and Kerridge, 2019). The authors believe that this may be due to two factors: 1) lack of focus on business model in HR planning; and 2) lack of a comprehensive methodology for including strategy and business model into HR planning, in a way that is valuable, rare, and difficult to imitate. This will be explained further below.

While strategy influences which behaviors are needed to differentiate a firm from its competitors, this view is entirely external. AMEX's differentiation strategy alone does not translate directly to profitability. Rather, this strategy informs the business model, or how the firm translates the strategy into revenue generation and profitability (Casadesus-Masanell and Ricart, 2010). The HR practices must also support the business model. In this case, AMEX would also need to focus its HR practices on hiring, training and rewarding the best financial managers, who can generate models which enable AMEX to achieve sufficient profit margins. Focusing solely on competitive strategy would cause AMEX to neglect this step.

In addition, for certain organizations, such as not-for-profits, competitive strategy is not as salient as it is for highly innovative or cost-focused industries (Porter, 1986). For example, a community mental health agency might be the only provider in its region. It is not focused on beating the competition. However, it does need to meet business goals and manage its budget, in order to remain solvent and continue to receive client referrals from government agencies and social service organizations. In these cases, the business model would be more important.

Given the above arguments, there have been promising studies testing the relationship between strategic goals and HR practices (Schuler and Jackson, 1987; Takeuchi, 2009). These studies have found that when specific suites of practices were matched up with specific strategies, this resulted in higher firm performance. This work has provided a promising indication that business outcomes are higher when HR practices are aligned to the strategy. This establishes the "valuable" component of RBV.

However, to our knowledge, there has not been a comprehensive HR planning method provided to ensure that this value is rare, difficult to imitate, and difficult to substitute (Barney, 1991). Such a methodology is necessary to ensure that the HR system is unique in its market.

In this paper, we propose that systemic design methodology (SDM) provides an appropriate framework to accomplish this (Rosini and Barbero, 2021). SDM is a method for developing approaches to complex and dynamic problems. It includes key steps focused on discovery and diagnosis, framing and concept formation, planning, intervention and evaluation (Jones, 2014).

Literature Review.

Organizational theorists have argued that human resources practices can be configured to support specific business strategies (Buller and McEvoy, 2012; Schuler and Jackson, 1987). Barney (1991) defines human resources as "training, experience, judgment, intelligence, relationships and insights of individual managers and workers…" As such, human resources is well-suited to provide strategic advantage. This is because if managed properly, it provides a valuable, rare, and difficult-to-imitate resource. By "valuable," Barney argues that the resource must help the organization exploit an opportunity or defend against a threat. In the case of HR, this could include training a customer service team to support a target market of high-paying customers, resulting in increased revenue. By "rare," Barney notes that a firm gains competitive advantage by implementing value-creating strategies that other firms are not implementing. He cites "managerial talent," a human resources resource, as being rare. In this example, a firm's managerial team might have a unique skill set which encourages the development of innovative products. This firm's competitors lack that skill set.

Barney also argues that the resource must be "imperfectly imitable," or difficult to imitate. If other firms can easily replicate the resource, it will no longer be rare and valuable. Unlike physical resources such as machinery and technology, human resources are difficult to replicate, because "unique historical conditions" help form them. One example is AMEX's acquisition of Rooam (Muhn, 2024), a mobile payment platform focused on dining and restaurants. A unique condition had to occur, where an organization with the specific talent AMEX needed was available for purchase.

In addition, Barney notes that human resources establish inimitable value by fostering "socially complex" interpersonal relationships at work. For example, through culture initiatives and team building, HR shapes interpersonal relationships that foster unique ways to collaborate. Finally, Barney notes that the resource must not have easy-to-find substitutes (1991). In the case of technology, copycat apps become available each day, at lower and lower cost. However, Barney notes that a firm will be unable to copy another's leadership team with any effectiveness.

The literature has also indicated that these HR practices need to be arranged in a complementary way (Buller and McEvoy, 2012). To support the strategy, practices must be mutually reinforcing and cannot be introduced in isolation. This argument is supported by the value chain concept advocated by Porter (1996), which posits that an organization will be better able to execute its strategy if it coordinates its internal activities focused on developing, producing, selling and delivering its products and services. Iruthayasamy (2021) describes several examples of this, such as the need for Southwest Airlines (cost leader) to implement various internal cost management practices, or the need for Apple (differentiator) to implement internal activities that support innovation and enhanced brand management. These internal activities include HRM practices (Buller and McEvoy, 2012).

In sum, HR scholars have cited RBV as the theoretical justification for aligning HR practices with strategy, and have noted that these practices must be mutually supportive. However, it does not appear that they have explained how this can be done in a way that is rare, inimitable, and difficult to substitute. Instead, HR practitioners are often focused on the opposite – how to adopt the latest trend or best practice in the field. This runs counter to RBV. Therefore, a gap remains in understanding how the strategic and business model views can be properly incorporated into HR planning (Jackson, Schuler, and Jiang, 2014).

Business models. It is likely that HR practices need to support the business model as well as the strategy. The business model describes how transactions are structured and governed in a way that generates revenue (Amit and Zott, 2001). It also includes how internal technologies are set up to support the transaction structure (Casadesus-Masanell and Ricart, 2010). Unlike the competitive strategy, which is externally facing, the business model is mostly internal.

There are many types of business models. Some common types include product-based models such as manufacturing and retail, service-based models such as consulting and software-as-a-service (SaaS), subscription models such as Netflix, and Freemium models such as Spotify (Andreini et al. 2021). An effective business model will go beyond describing the product or service. It also describes how it operates internally and what behaviors are needed from employees (Amit and Zott, 2001). For example, in e-commerce, business models may vary according to their focus on efficiency (such as with Amazon), complementarities (such Apple's bundling of hardware and software), Lock-in (such as subscription models), or novelty (such as NFT's).

A successful business model requires employees to adapt, collaborate and engage in work process innovations (Andreini et al. 2021). It requires a specific set of knowledge, motivations and behaviors to be properly executed. Like the competitive strategy, the business model requires internal assets to be arranged in a complementary way to be successful. For these reasons, HR practices should be designed to support the business model as well as the strategy.

This argument is consistent with RBV because a firm's business model enables the firm to "exploit opportunities and/or neutralize threats" (Barney, 1991). For example, one of the authors recently helped a local convenience store chain develop a supervisor training program. This firm uses a cost leadership strategy. To translate this strategy to profit, the firm controls most of its supply chain, from production to retail sales. This allows for better cost control and product consistency, which in turn enables the cost management strategy. The supervisor training program was necessary to ensure that managers overseeing the supply chain are enforcing these controls.

Another reason for focusing on business model is that in some organizations, the business model is more salient than the strategy. In some instances, an organization develops its business model before its strategy. An example provided by Teece (2010) is that of Gustavus Swift in the 1840's, who proposed slaughtering cattle in the Midwest United States, and then shipping the refrigerated meat to the east coast via railroad, instead of shipping live cattle. In this case, Swift had to first prove that the business model was financially viable, before attempting to differentiate his services from that of east coast butchers. Swift's business model required a strong focus on efficiency and logistics, innovative development of refrigeration methods, and public relations campaigns to convince customers that the new methods were safe and appealing. All these efforts had implications for the types of employees who were recruited, and how their skills were developed and employed.

This prominence of business model may also occur in startups or other organizations requiring innovation and change. In these cases, the firm is more focused on how to turn "payments into profits" (Teece, 2010) than on its competitive posture. In addition, certain industries may be more focused on business model than on strategy. This includes organizations such as educational institutions and social service agencies, health care and other not-for-profit organizations. These organizations may be the "only game in town," so distinguishing oneself from peers is not a significant focus. And yet, these organizations are all motivated to meet performance goals and execute a business model. For example, a university may not have significant competition in its region, but it must meet its business model to continue to receive the accreditation that allows it to continue functioning.

Business models require refining over time, such as when a previously unique technology becomes outdated (Teece, 2010). This may require a revision of the HR practices. This is relevant to the previous example of American Express, where the business strategy was differentiation through exceptional customer service. This translates to the business model by allowing AMEX to charge vendors a higher interchange fee, which the vendor pays to facilitate payment. This results in higher revenue for AMEX. However, AMEX's business model has evolved, with increasing focus on mobile platforms and contactless payments. This has required AMEX to acquire fintechs and build highly technical and agile product and technology teams, essentially altering the business model and requiring HR practices to grow their focus on technical capabilities, mergers and acquisitions and organizational change.

Systemic design methodology. The above theory and research indicate that strategy and business model are key content inputs into the HR plan. With that said, the authors are not arguing that there is a specific bundle of practices that should be applied to each strategy or business model (Schuler and Jackson, 1987; Takeuchi, 2009). Such an approach would run counter to RBV, as competing firms using similar strategies could copy each other's practices. Instead, the authors suggest shaping the HR plan in a unique way that satisfies RBV. For example, how can the workforce support the business model in a socially complex, inimitable way? How can the firm exploit unique historical conditions which position people to enable the strategy?

To answer this, the authors suggest starting by viewing human resources planning as a "wicked problem" (Rittel and Webber, 1973) in the context of systemic design methodology (SDM). SDM is an interdisciplinary approach that uses design methodology and systems thinking to solve wicked problems, which are "...complex situation(s) that cannot be reduced and analyzed with the techniques of classical problem solving and decision making" (Jones, 2014). Human resources planning meets this definition because, when it satisfies RBV, it is dynamic, resistant to definitive solutions and requires creativity and innovation. This fosters the uniqueness and inimitability required for lasting value.

Before proceeding, the authors wish to clarify a potential point of confusion between the terms "systemic design," "systematic design," and "systems design." Each of these terms corresponds to a different line of research. Systematic design is used in product development and engineering, and is a structured step-by-step methodology to solve problems with logical reasoning (Pahl and Beitz, 2007). Systems design, on the other hand, is a practice where specialists architect large-scale information systems in fields like software development, engineering and technology (Turner, 1986). Neither of these two is the focus of this paper.

Instead, this paper focuses on systemic design methodology (SDM). Systemic design focuses on a holistic and interconnected approach. SDM can guide HR planning to incorporate complex, interconnected situations by fostering collaboration among stakeholders, while maintaining continuous learning and adaptivity (Jones, 2014). Various SDM models have been suggested (Jones, 2014; Saarelainen, 2024; Rosini and Barbero, 2021; Ryan, 2014). For the purposes of HR planning, we will divide SDM into 4 key steps: 1)

Discovery and Diagnosis 2) Framing and Concept Formation 3) Planning and Intervention 4) Evaluation. Following is an overview of these steps.

The first step is Discovery and Diagnosis. This step involves gathering multiple perspectives to frame and reframe organizational problems. In organizational applications, Rosini and Barbero (2021) recommend reviewing the organizational chart and key relationships, as well as environmental factors, such as industry, employee demographics, and organizational culture. This identifies a variety of stakeholders and inputs, clarifying the unique historical conditions necessary for RBV (Barney, 1991). In addition, because new HR initiatives typically require change management, early engagement of various stakeholders improves buy-in.

The second step is Framing and Concept Formation. This is an iterative process to identify the main challenge. Framing is the act of making sense of a complex reality by identifying, arranging and shaping a view that can be used for analysis and action (Saarelainen, 2024). Framing shifts one's perspective to discover insights and opportunities that may have been missed (Ryan, 2014). Rosini and Barbero (2021) describe this step as the identification of the main challenge facing the organization, such as the need for growth or a change in culture. In HR, this is where one may uncover the disconnect between human resources practices and the business model and/or strategy.

The third step is Planning and Intervention. This is where solutions are created and deployed, targeting groups where interventions can be tested. In the case of HR practices, this may start with a pilot group. The key is identifying multiple solutions that can be deployed with the highest impact (Saarelainen, 2024). This process allows HR to refine practices and develop uniqueness (Barney, 1991).

The last step is Evaluation. In this step, the gap between expected outcomes and actual outcomes is evaluated. Ryan (2014) states that gaps are inevitable due to changing environments. However, these gaps provide valuable learning experiences that can be used for future iterations. In HR, a regular survey process can assess whether the necessary employee behaviors are being performed for the strategy and business model. HR can also re-evaluate how distinct its practices are from those of competitors. This further ensures inimitability (Barney, 1991).

In sum, these SDM steps provide a process which allows HR to consider a wide range of inputs, to incorporate strategy and business model in a valuable, rare and inimitable way. In our propositions below, we will provide supporting research and further describe how strategy and business model may be incorporated into HR planning via SDM.

Contributions. This paper will contribute to management theory and practice in a variety of ways. Theoretically, it attempts to merge the resource-based view (Barney, 1991) with systemic design theory. To our knowledge, this is the first attempt to merge these theoretical approaches. From a practitioner's view, these propositions will point toward a new methodology which helps practitioners design HR plans so they provide unique and lasting value.

Propositions.

Proposition 1: Competitive strategy and HR effectiveness. As noted earlier, significant theory and research indicate that business outcomes will be improved if HR practices support the strategy. In an early study, Schuler and Jackson (1987) found that aligning HR practices with competitive strategy was related to improved firm performance at United Parcel Service, Honda, and Frost Inc., a Michigan-based manufacturer. At Honda, for example, Schuler and Jackson found that offering extensive training, job security and egalitarian pay practices helped facilitate behaviors needed for its quality enhancement strategy. Takeuchi (2009) found, in a study of Japanese firms, that firm performance, as measured by market growth rate, profit margin, and return of assets, was positively related to the use of specific HR practices under different strategies.

More recent research also suggests that HR practices can facilitate targeted behaviors. For example, Kundia, Yehuda, and Ullah (2023) found, in a three-wave study of employees from several industries, that perceptions of HR practices were related to turnover and knowledge-sharing. Kutieshat and Farmanesh (2022) found, in a study of 450 Jordanian education employees, that HR practices were related to innovation behaviors. Choo (2024) recently found, in a study of 227 Korean firms from various industries, that firms pursuing ambidextrous strategy (both cost leadership and differentiation) performed better when HRM investment was high.

In sum, these studies indicate that there is a positive relationship between the use of carefully selected HR practices on the one hand, and firm performance on the other. In this sense, they provide backing for the first component of RBV: that the resource must provide value to the organization. In these cases, that value is evidenced through improved revenue and efficiency.

Proposition 1. HR Plan effectiveness will be higher when HR practices support the competitive strategy.

Proposition 2: Business model and HR effectiveness. As noted earlier, there has been less examination of the relationship between HR and business model than there has been between HR and strategy. Even so, some research supports the argument that HR practices should be aligned with business model. Malik, Pereira, and Budhwar (2018) argued that human resources practices, such as learning and development, work design, training, hiring and performance management all contribute directly to a business model's effectiveness in creating and realizing value. In their study of Danish businesses, Nielsen and Montemari (2012) found that human resources practices were related to organizational performance for firms using a network-based business model. In their review of studies focused on business model innovation (BMI), Andreini et al. (2021) found that knowledge-shaping and learning processes were key components of BMI. They defined knowledge-shaping as the processes used to generate innovative ideas and disseminate them throughout the organization. This is a process that is typically owned in the learning and development (knowledge management) team of HR.

Similarly to strategy, the above research indicates that carefully selected HR practices will help facilitate the execution of the business model. This also establishes value in the context of RBV.

Proposition 2. HR Plan effectiveness will be higher when HR practices support the business model.

Proposition 3: SDM and HR effectiveness. While the above research supports the alignment between HR practices and strategy/business model, it does not establish rarity or inimitability. Therefore, we argue that HR plan effectiveness will be most effective when the above factors are incorporated under systemic design methodology (SDM).

Under SDM, there is no single approach for each strategy and business model. Therefore, we will illustrate its application via example, using the previously described four steps. The first step is Discovery and Diagnosis. In our example, a firm with a differentiation strategy is experiencing employee retention problems. It is paying higher than its peers, and it rewards employees for innovation. Without SDM, the firm's diagnosis might simply include reviewing compensation practices. However, SDM leads to a more holistic assessment. The firm gathers insights from stakeholders on its culture, previous interventions, structure, leadership background, unique interpersonal relationships, and location footprint. This considers the firm's differentiation strategy and uniqueness.

Continuing with our example, the second step is Framing and Concept Formation. Without SDM, the firm may conclude that the retention problem is pay, and it should pay even more. With SDM, the firm reframes the problem to account for its learnings in the previous step. It determines that the problem is a recent leadership decision: a new executive has changed the compensation focus to reward customer satisfaction, rather than innovation. Employees are confused about how to succeed, resulting in turnover.

The firm is now ready for the Planning and Intervention step. One possible intervention is to keep the focus on customer service, and improve communication so employees understand pay's strategic role. Another intervention would be to modify the performance management process to better incentivize innovation. With SDM, HR planning considers the complexity of the "wicked problem," driving solutions that are unique, valuable and lasting.

In the last step, Evaluation, the gap between the intended outcome and the actual outcome is examined. Our firm may find that despite its efforts, the actual outcome is only a modest improvement in retention. With SDM, the firm embraces this as a learning opportunity and repeats the SDM steps. This time, the HR team conducts focus groups with employees. It discovers that customer satisfaction surveys were conducted for only large accounts, where employees are successfully executing the differentiation strategy. The new leader doesn't acknowledge smaller accounts, making a subset of employees feel unappreciated. Practicing SDM, the firm learned that it needed to include focus groups in the discovery and diagnosis step. Competitors cannot easily replicate how the firm adjusts its compensation focus to incentivize these strategic behaviors.

Some research indicates that SDM can be used to guide the development of organizational initiatives. Systemic design principles have been used in developing initiatives related to selecting managerial talent in Italian design firms (Cautela, Simoni and Moran, 2020), public transportation (Yan, Lu, Arquilla, Brevi, Rampino and Caruso, 2023), and education (Jacoby and Van Ael, 2021). A highly relevant application of SDM has been for work processes in the Australian Taxation Office (ATO) (Kaur, 2020). Kaur describes how systemic design principles of holistic thinking and multiple perspectives helped the ATO improve its communication and problem identification processes for taxpayers.

Proposition 3. HR Plan effectiveness will be most effective when strategy and business model are incorporated using systemic design methodology (SDM).

Discussion, Limitations, and Future Research.

In this paper, we have offered a framework for helping to ensure that HR plans, when aligned to strategy and business model, provide value that is rare, inimitable, and difficult to substitute (Barney, 1991). Future research should test these propositions. To do so, one element that should be studied is time. Previous studies have typically examined the relationship between HR practices, strategy and performance at a single point in time. This can demonstrate HR's value but not its inimitability. By examining whether HR practices contribute value over time, researchers will better understand the importance of inimitability. Such a study could compare performance at firms which use the recommended SDM approach vs. those which do not. Our expectation is that firms which use the SDM approach will find that HR provides greater value over time.

These studies could also examine whether the benefits of SDM are proportionate across business model and strategy. While strategy has enjoyed strong focus in the HR literature, business model is comparatively less studied. Research could focus on SDM's use in identifying employee behaviors that support the business model, along with the necessary HR practices. We expect that SDM's contribution to HR's lasting value will be commensurate across strategy and business model.

From a practitioner perspective, a more comprehensive explanation is needed describing how to apply SDM to all phases of human resource planning. This would likely focus on aspects of HR which shape everyday employee behavior, such as talent management, rewards, employee engagement and culture.

In addition, the SDM approach can enable HR practitioners to identify holistic solutions that address the root causes of employee-related challenges. Because a collaborative approach has been taken to identify the solution, the outcome is likely to be more innovative with multiple adaptive interventions planned for long-term impact.

A potential limitation of the proposed approach is the resources it requires. As illustrated in the example above, SDM requires that high-level leaders come together and align on organizational goals and culture. This is a significant resource request. HR practitioners would need to ensure that this approach is project-managed with great efficiency.

Conclusion.

We extend HR theory by reviewing research on RBV and SDM, identifying where HR planning has failed to live up to the requirements of RBV. Based on this review, we propose that SDM offers methodology which allows HR planning to occur in a way that satisfies RBV. Research is needed to further validate these propositions. If validated, this approach can be implemented as a framework for HR planning.

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