



# Understanding supply chain teamwork

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The cohesiveness and collaboration that exists in sports can serve as a model for improved business organizational dynamics, leading to a cross-functional organization that is more than the sum of its parts.

Sports and war have been conceptually intertwined throughout human history, reflecting fundamental aspects of human nature: the drive for competition, the need for community, and the desire for victory. Both sports and war engage with the common themes of teamwork, strategy, courage, and endurance, and both have been used to foster unity, instill discipline, and convey cultural values. Over time, sports have evolved as a symbolic, peaceful substitute for war, allowing societies to channel their competitive instincts in ways that celebrate achievement without destruction.

While organizational leadership and motivation theory have received significant contributions from the military, lessons from sports have been anecdotal at best. The cultural significance of team sports is evidenced in the North American market by the popularity and increasing revenues of the four major professional sports leagues and the projected 9.13% compound annual growth rate of the global sport industry to more than \$680 billion between 2022 and 2028. Team sports maintain a high-pressure, strategic, military-like environment with a need for continuous

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emphasis on growth and coordination, making them an ideal setting to study organizational management.

Team sports, with their varied approaches to teamwork and competition, have become valuable models for exploring organizational dynamics. While sports analogies and anecdotes are prevalent in business literature, the full potential of the connection between sports and organizational theory remains untapped. This gap is likely due to the absence of a comprehensive theory capturing the nuances of teamwork (across different sports) to better understand how organizational context shapes the effectiveness of data capture and development of actionable intelligence. Here, we elucidate the underpinnings of a team theory from the perspective of the relationship between social and intellectual capital in achieving organizational advantage (Nahapiet and Ghoshal 1998).

While team sports vary along several dimensions, their applications to management rely mainly on the required degree of managerial coordination and the degree of coordination among team members. Keidel (1984) offers a notable framework for understanding different team dynamics by comparing professional sports such as baseball, basketball/soccer, and football. In Keidel's model, each sport exemplifies a unique form of team dynamics (see Figure 1).

- Baseball requires a relatively low degree of managerial and member coordination. The sport acts largely as a collection of individual players maximizing their own position. Offensive players do their best to get on base and advance other runners. Defensive players make the plays that come to them and there is little communication for changing strategy during execution of the play. Managers put the players in the right positions so

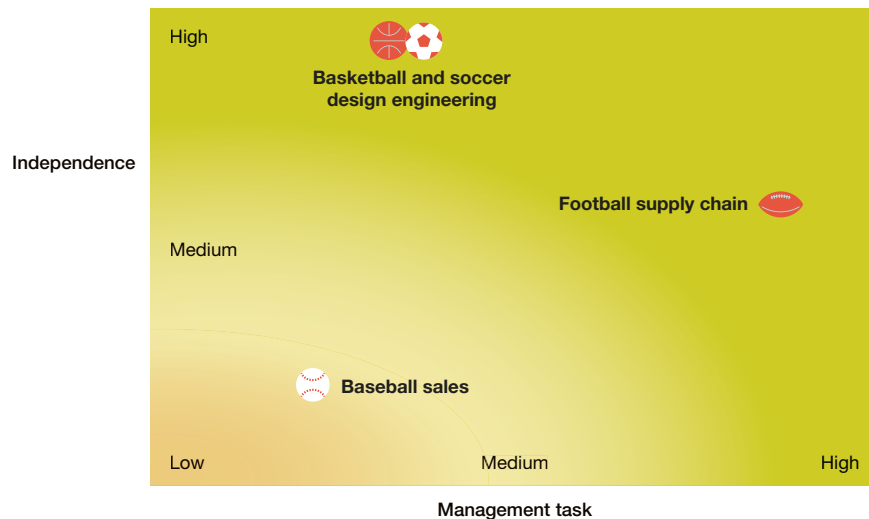
that their individual abilities will be maximized. Players need to understand each other's roles, but not to the degree of basketball or football. Baseball is a good model for the classic sales team made up of high-performing individuals.

- Basketball and soccer require more harmony between the players and active adjustments during a play. Players must adjust dynamically, understand each other's abilities, and react to teammate and opponent actions without direction from a coach. The coach provides guidance, training, and observes the team to adjust when needed. Basketball represents a design engineering team where members seamlessly coordinate all activities to solve problems and innovate without much managerial oversight.

- Football requires a high degree of managerial coordination and moderate team member coordination. A football team is made up of offense, defense, and special teams. Each team is made up of multiple position groups (offensive line, defensive secondary, punt team, etc.) Each position group and team has its own coaches who focus on that group's goals in relation to the team goals, and each serves as a "supplier" of specific essential skills. The coaches communicate up and down the command chain to adjust on a play-by-play basis. Football's structured organization and multiple sub-units resemble the typical

FIGURE 1

### Modified differential coordination requirements



Source: Adapted from Keidel, 1984

supply chain or other complex organizational structure.

Through this lens, organizational units can leverage the specific dynamics from the sport that most closely resembles its structure to model teamwork and maximize strategic fit facilitating 1) coordinated overall supply chain strategies; 2) appropriately structured processes; and 3) strategically aligned roles and objectives across the supply chain. For example, baseball resembles many sales teams. Individuals have a common organizational goal but work independently to attain their portion of that goal. Even limited competition among team members can enhance the organization's productivity. Basketball's requirement for high member coordination emphasizes real-time team collaboration. A creative team working on product design or a new advertising campaign can benefit from a similar leadership style. Finally, football's structured organization and multiple sub-units is most similar to a supply chain or other complex structure. Purchasing, warehousing, shipping, production, etc. all execute their tasks in a coordinated fashion that maximizes supply chain performance. Managers in each division communicate with the C-suite to hit production targets and avoid stockouts while communicating to their workers what needs to be done on a frequent and regular basis. The lessons learned from each of these sports can be applied at every level of enabling teamwork in an organization from recruiting to team development to management structure.

## Recruiting

From the sports model, we learn that different team contexts demand varying knowledge, skills, and abilities from their members—skills essential not only to the task-work but perhaps more critically, to the teamwork itself. Salas et al. (2015) highlight that “generic teamwork skills determine team success above and beyond unique individual technical skills and abilities,” identifying feedback provision, adaptability, and problem solving as critical competencies. We further propose that former college athletes represent an untapped resource in the job market, as their teamwork skills are often undervalued and they represent a highly diverse and well-educated talent pool. Building a successful team, therefore, begins with identifying and recruiting individuals who possess these essential qualities. In football, a strong team is composed

of individuals who excel in three key areas: taskwork (e.g., mastering the playbook, maintaining the necessary physical conditioning for their role), character (e.g., displaying grit, perseverance, and a willingness to learn), and teamwork (e.g., demonstrating a commitment to the team's mission, objectives, and norms). A balance across these dimensions is essential to cultivating a cohesive and high-performing unit.

Additionally, experience in a similar setting to the team context of the particular organization can lead to a team member's greater success. While some organizations recognize the value of sports experience in recruitment, some still fail to see how it complements academic or related career achievements. Perhaps because not all sports experience translates equally. The traits that lead an athlete into football, along with the development of a sense of team and execution in their role that comes from playing the sport at a high level, are more likely to lead to success in organizations with a similar structure to the sport. Salas et al. (2015), suggest that where teamwork is required to accomplish a specific goal, finding team-oriented members—“members who enjoy and understand the benefits of working in a collective environment”—will be much more successful at applying the team approach with greater coordination and communication.

If intellectual capital is to be based on teamwork, there may be no better recruiting ground than the actual football fields of higher education institutions, where athletes have been shaped by years of elite competitive training in a team-centric environment. Football's inherent structure—especially at higher levels—makes feedback a crucial and consistent part of performance improvement. Former NFL defensive lineman and American Ninja Warrior co-host Akbar Gbajabiamila credits the rigorous feedback culture of organized football for giving him a competitive advantage in television. Trained to appreciate feedback on the gridiron—spending hours watching film to dissect mistakes and continuously improve—he developed a tough skin and a growth mindset. While other TV personalities without his football experience struggled with executive producers' critiques, Gbajabiamila embraced them as opportunities to excel, a skill forged through football's relentless focus on improvement and accountability. This mindset exemplifies how the transferable knowledge, skills, and abilities

developed in sports can serve as untapped human capital for success in team-based and performance-driven careers. Hiring athletes with a strong capacity for feedback and a hunger for growth is an invaluable asset for organizations seeking to build intellectual capital and enhance both individual and team capacity.

Such impact is perhaps best illustrated through a current and highly publicized example of the transition of former professional athletes into the world of business—this being the joint acquisition of National Association for Stock Car Auto Racing (NASCAR) Front Row Motorsports and 23XI Race Team by National Basketball League (NBA) Hall-of-Famer Michael Jordan. In his capacity as team owner, Mr. Jordan is no longer on the field of play—he is at the helm of a multimillion-dollar business enterprise seeking to maximize his team’s share of NASCAR’s supply chain surplus. Under his direction, Front Row and 23XI’s top driver, Tyler Redick, finished fourth in the 2024 NASCAR Cup Series Standings, just 9 points shy of the Cup Series Championship, and tied for fifth place in total corporate sponsorships. In their book, *Operations Management, Sustainability and Supply Chain Management*, “High Performance Teamwork Makes the Difference Between Winning and Losing,” Heizer, et al., (2024, p. 404) provide a detailed and insightful look into the team dynamics of a winning NASCAR pit crew. Taking a closer look at Tyler Redick’s top-finishing crew we find that of the six members, three are former elite athletes:

- Jackman Nathan Ricketts, former linebacker for Central Michigan University;
- Fueler Brian Dheel, former assistant head soccer coach at Pfeiffer University; and
- Tire Carrier Wade Moore, Former Major League Baseball (MLB) fielder.

These individuals further exemplify the team-centric contributions that exceptional former athletes can make to organizational success.

## Team development

Teams in both sports and organizations evolve over time through the accumulation of social and intellectual capital (Nahapiet & Ghoshal, 1998). In football, this development is rooted in the depth and breadth of relationships among team members within a culture that fosters both high levels

of competition and cooperation (Katz, 2001). Such a culture demands unwavering commitment to the team’s mission and vision, prioritizing collective success over individual agendas while empowering every member to perform at their best, regardless of their role.

In a business context, social capital refers to the resources embedded in, accessible through, and derived from an individual’s or group’s network of relationships. These relationships act as a foundation for collaboration, trust, and the exchange of knowledge, driving team cohesion and organizational success. This capital is also multidimensional, comprising of the following.

- **Structural dimension:** The configuration and quality of network ties, network configuration, and the networks appropriability to other contexts.
- **Relational dimension:** The trust, standards, responsibility, and identification individually and collectively shared to strengthen relationships within a team.
- **Cognitive dimension:** Shared meanings, language, and narratives that enhance team understanding and alignment.

When effectively cultivated, the dimensions of social capital—opportunity, expectation, motivation, and combination capacity—serve as the foundation for transforming a group of individuals into a cohesive team capable of generating intellectual capital: the collective knowledge and actionable insights that arise from a well-integrated unit. This concept is exemplified by the 1999 St. Louis Rams, who defied all odds under backup quarterback Kurt Warner. Called to lead after a devastating injury to the starter, Warner and the Rams rallied despite being a team that, on paper, lacked the star power, coaching schemes, and systems typically associated with championship expectations. Unlike Tom Brady’s New England Patriots, who consistently generated high expectations, the Rams were coming off a dismal 4-12 season. Yet, under the passionate leadership of head coach Dick Vermeil, they leaned on exceptional communication, coordination, trust, and shared commitment. This synergy enabled them to shatter a nine-year losing streak and win Super Bowl XXXIV in dramatic fashion, proving that the power of a unified team can create outcomes far greater than the sum of its individual parts.

A similar dynamic can be seen in Inditex-Zara, a global

leader in the fast-fashion movement within the apparel retailing industry. By streamlining supply chain practices, they harnessed social capital within their organization to drive superior outcomes. Efficient data collection and communication empowered timely decision-making, while high levels of intradepartmental collaboration—facilitated by integrated POS systems providing both quantitative and qualitative insights—kept teams aligned. In an industry where the average cycle for product design, production, and delivery spans five months to six months, Inditex-Zara’s groundbreaking “Rapid-Fire Fulfillment” strategy slashed lead times to just 15 days. This responsiveness demonstrates how a well-coordinated team can create competitive advantages that redefine industry standards.

Football exemplifies the optimal integration of social capital dimensions—structural, relational, and cognitive—necessary for developing organizational intellectual capital. In football, the structural dimension is evident through the interconnected roles and formalized relationships that facilitate efficient communication and coordination. Relationships are cultivated as team members develop trust, shared expectations, and a commitment to each other’s success building a deep unit identity that serves the organization. Cognitive resources, meanwhile, emerge from the team’s shared language and stories managed at the unit level within the organization’s overall goals, values, and mission. Nowhere else is Salas and colleagues’ (2015) assertion that “despite having an extensive knowledge of the task at hand, a team will fail if the members cannot successfully share knowledge, coordinate behaviors, and trust one another,” more applicable. The football team model thus provides an ideal framework for organizations to capitalize on Nahapiet and Ghoshal’s (1998) insight that “collective knowledge is the most secure and strategically significant kind of organizational knowledge.” For modern organizations—

particularly those involved in complex operations like supply chain management—this model offers a pathway to develop competitive advantages.

## Management structure

*“Sports are unequivocally ‘people intensive.’*

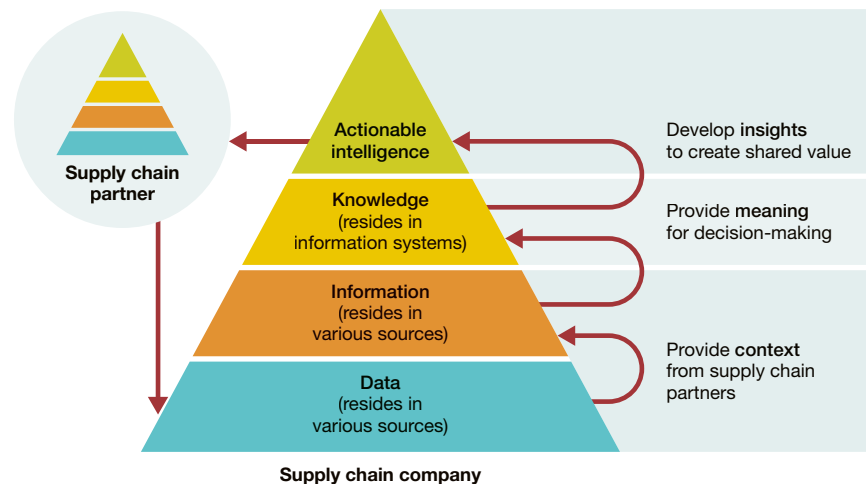
*The net effect is that sports provide a direct window on strategic human resources management.”*

*(Nahapiet & Ghoshal, 1998).*

By framing teamwork within the football model as a dynamic interaction of social and intellectual capital, organizations can more effectively align individual contributions with collective goals, resulting in enhanced performance and a stronger foundation for sustained

FIGURE 2

### Modified DIKAI Pyramid



Source: Adapted from Dow et al., 2024

success. The DIKAI Pyramid has been described as a framework for understanding intra- and inter-organizational data flows across supply chain partners (Dow et al. 2025), distinguishing between organizational data and supply chain partner data. This model (as shown in Figure 2) emphasizes the importance of team-based approaches to enhance intellectual capital, especially within the realm of supply chain data. When applied through a team-oriented lens, supply chain units can centralize around a common goal, viewing the entire supply chain as a cohesive team rather than as disjointed individual units.

For example, Dow et al. argue that intellectual capital

within a supply chain is best optimized when captured and synthesized by the supply chain team rather than isolated units. By aligning the team with shared social capital—mirroring the sequential interdependence seen in football—supply chains can improve both the quality and depth of data inputs. This approach ultimately allows supply chain organizations to develop more robust actionable intelligence.

Viewing the supply chain as a cohesive, football-like team fosters long-term success by leveraging intellectual capital developed through teamwork. When supply chain partners share a unified vision of collaboration and centralized data collection, they can establish a “dynasty” of resilience and competitive strength. In this model, social and intellectual capital are not merely advantageous but are core to sustainable success, illustrating how collective knowledge and coordinated action far surpass the limitations of isolated efforts. At the highest level, we may also view national sports leagues such as the National Football League (NFL) as near-ideal analogues for supply chain consortia, serving as drivers and gatekeepers of streamlined supply chain coordination providing the following.

- Aligned goals and incentives in the form of complex conference schedules, playoff formats and championships.
- Improved visibility through shared marketing and promotion.
- Improved operations through shared best practices such as advances in equipment and sports medicine.
- Development of strategic partnerships such as the acquisition of corporate sponsorships and national media contracts.

## Conclusion

The application of sports, specifically football, as a model for organizational dynamics can provide valuable insights and strategies for teams and organizations seeking to leverage intellectual capital and achieve sustained success. The model can be applied to improve various areas of management. The importance of grit and coachability exhibited by ex-football players makes them ideal candidates to hire into complex systems. Furthermore, the transferable knowledge, skills, and abilities developed in sports can serve as untapped human capital for success

in team-based and performance-driven careers. Team development must be multifaceted, focusing on the individual’s role in the broader system, while providing cohesiveness within the unit and understanding of how one unit works with others. Finally, a management system must be established to allow for effective and timely communication between managers of the various functional areas and C-suites across the entire supply chain.

Further, the potential benefits of applying the principles of football to organizational management are particularly relevant in the context of supply chain management. By viewing the supply chain as a cohesive team, organizations can optimize data capture and development of actionable intelligence, leading to improved performance and resilience. By adopting a team-based approach that integrates social and intellectual capital, organizations have a pathway to developing competitive advantages which can be leveraged to drive innovation, improve decision-making, and enhance overall organizational performance. The football model offers a powerful framework for achieving this goal, and its applications are likely to be far-reaching and impactful. •

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