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ARTICLE

Performance and Individual Characteristics as Predictors of Pay Levels: The Case of the Italian '*Serie A*'

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ABSTRACT Recent years have seen the development of a growing literature, and corresponding managerial practices, about compensation measurement and management. On the other hand, there has also been the emergence of unexpected salary dynamics that seem to escape from any managerial control. The debate on salary dynamics is very much to the fore when it comes to the sport industry, especially football. This paper aims to analyse some of the determinants of Italian soccer players' salaries. In so doing, it analyses data collected from the 2001–2002 and 2002–2003 *Serie A* seasons, adopting a standard multiple regression model. Our findings show how the dynamics of players' salaries in the *Serie A* strongly fits with the non traditional pay plans (strongly with the pay-for-performance approach and partially with the skill-based one), while the traditional pay plan based on the job held by an individual seems not to fit.

Introduction

In recent years, numerous researchers have noted that people may be the ultimate determinant of organizational performance, since traditional sources of competitive advantage related to markets, financial capital and scale economics have been weakened by globalization and other environmental changes (see Cappelli, 1999; Pennings, Lee, & Van Witteloostuijn,

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1998; Pfeffer, 1998). Consistently with this strong focus on the relevance of the human element, organizations have fostered their attention on the development of appropriate HR architectures in order to recruit, select, develop and retain individuals who possess those skills and competencies that can contribute to increase organizational performance (Huselid, Jackson, & Schuler, 1997; Lepak & Snell, 1999).

Monetary compensation is one of the main instruments that organizations use in order to attract, motivate and retain their personnel (Pfeffer, 1994). Economists and compensation specialists argue that pay policies can influence employee behaviour and have desirable incentive effects (Ehrenberg, 1990; Roberts, 2004). Thus, many researchers have tried to investigate the role that reward and compensation systems play in affecting individual performance. Scholars have proposed a large variety of policies, forms and approaches, distinguishing between two main compensation systems: traditional (job-based) and non-traditional (skill or performance-based) plans (Mahoney, 1989).

The debates on the relationship between different compensation systems and individual performance are very much to the fore when it comes to the sport industry. Sports represent a clear example of labor-intensive contexts, in which human resources strongly affect organizational performance (Keidel, 1987; Wright, Smart, & McMahan, 1995). Thus, decisions behind compensation systems can potentially play a relevant role in affecting, for instance, players' motivation and performance. In recent years, all the most important European football leagues have been characterized by a strong increase in clubs' expenditures on players' salaries (Ascari & Gagnepain, 2003; Dobson & Goddard, 2001; Lago, Baroncelli, & Szymansky, 2004). For instance, in Italy the 'Serie A' clubs' expenditures on salaries for players have increased by a yearly average of approximately 30% from 1998 to 2003 (Deloitte, 2003).

Thus, this paper aims to analyse the determinants of a compensation system in a team-based context. In other words, we will try to explain the nature of football players' salaries, focusing on some potential variables that could predict individual compensations. In so doing, we will analyse the case of the Italian *Serie A* Football League. The Italian *Serie A* represents an important setting with significant relevance in economic, social and media terms. For instance, the *Serie A* is widely known as one of the most popular soccer leagues in the world, and it is home to the majority of the players who became soccer world champions in Germany 2006. In order to test our hypotheses, we collected data on teams and players that have played in the *Serie A* between 2001 and 2003, and used a standard multiple regression model.

This paper is divided in three sections. The first section illustrates the theoretical background and motivations behind the study. The second section presents the data and methodology used. The final section discusses the results and concludes.

Theoretical Background

Traditional and Non-Traditional Compensation Systems

Organizations have to design and manage appropriate and effective human resources architectures in order to recruit, select, develop and retain their personnel (Lepak & Snell, 1999; Pfeffer, 1994). Monetary compensation is one of the core elements of such architectures, since it can play a relevant role in affecting employees' behaviour and motivation (Ehrenberg, 1990; Roberts, 2004). For instance, agency theory argues that compensation systems are strong monitoring and incentive alignment mechanisms, which can minimize moral hazard and adverse selection phenomena (Brickley, Smith, & Zimmerman, 1997; Eisenhardt, 1989; Milgrom & Roberts, 1992; Rodriguez, Espejo, & Cabrera, 2007).

However, previous studies have shown some contradictory results. On the one hand, compensation systems seem to be more and more sophisticated (Kaplan & Norton, 1996). On the other hand, wage dynamics are often beyond the range of applicability of rational models, following heterogeneous market dynamics such as skill shortage or superstar effects (Lucifora & Simmons, 2003; Rosen & Sanderson, 2001). For instance, in modern labour markets a few individuals in selected professions can enjoy very high earnings. Obviously, a natural explanation is that the scarcity of talents should be able to account for the large differences in pay for some workers. In most professions, however, even very talented workers (e.g., Nobel prize winners who might expect to earn much higher salaries as compared to most of their colleagues) compare unfavourably with the very-high-earnings professions, like movie stars or professional sportsmen (Fort & Quirk, 1995; Lucifora & Simmons, 2003; Nelson, Donihue, Waldman, & Wheaton, 2001). So, why is it that some professional sportsmen earn very high salaries while others have very low ones? What are the predictors of individual pay levels in traditional industries, and those in the sports context?

Previous studies on compensation have proposed a large variety of policies, forms, and approaches (Mahoney, 1989; Rynes & Gerhart, 2000). According to the traditional approach to compensation, the primary determinant of differences in pay is the job held by an individual within an organization (Mahoney, 1989). Such a pay plan is usually termed job-based compensation. The origins of the job-based compensation can be found in the industrialization process and mass production. The mass production of standardized products has led to stable work environments, with work fragmented into repetitive processes and sequential job activities. Thus, the type of job became the basis for all human resource management, and job-based compensation systems influenced workers' attitudes, and their perception of their rights and duties (Mahoney, 1989).

Over time, the traditional job-based approach has raised doubts and perplexities, which have led to a new approach, known as the non-traditional pay plan. Increased competition and greater pressure on economic and financial performances have led firms to constantly seek out

new managerial practices, and, more specifically, new compensation methods geared toward creating a strong link between individual performance and economic results (Gerhart & Rynes, 2003; Pfeffer, 1998; Rigby, 2001, Youndt, Snell, Dean, & Lepak, 1996). Non-traditional pay plans can be divided into two categories: performance-based approach and skill-based approaches. The last two decades have witnessed an increase in the prevalence of different systems of pay for performance in many organizations (see Heneman, Ledford, & Gresham, 2000; Milkovich & Newman, 2002; Schuster & Zingheim, 2000). In order both to hire the most highly skilled employees and to motivate those employees to maximize their output, firms adopt pay-for-performance compensation schemes, which systematically tie remuneration to output. Such pay plans can act as effective contracting mechanisms to resolve agency problems, and as a sorting device to identify and attract the most capable employee. The incentive property of pay for performance has been extensively examined theoretically (Baker, Jensen, & Murphy, 1988; Lazear, 2000) and empirically in both the laboratory (Fessler, 2003; Kuhn & Yockey, 2003) and the field (Gerhart & Milkovich, 1990; Stajkovic & Luthans, 2001). Pay-for-performance systems supporters argue that traditional compensation systems present different problems and limitations: compensation is perceived as a taken-for-granted right, salaries depend more on hierarchical levels rather than on actual performance, and merits are not reflected in any monetary remuneration (Mahoney, 1989; Stajkovic & Luthans, 2001). At the same time, some researchers have criticized pay-for-performance systems, highlighting how such systems may have disruptive effects on intrinsic motivation, self-esteem and creativity (Abowd, 1990; Beer & Katz, 2003). Other issues arise in their implementation stages, as noted by Pfeffer and Sutton (2006), since there is often a gap between what managers theoretically know and want, and what they actually are able to implement.

The third approach to compensation is skill-based pay. A skill-based approach establishes different pay levels through differences in individual skills (Lawler & Ledford, 1985). In other words, such pay plans mean that compensation is determined by the employee's skill and knowledge. Because the rationale is that, as employees acquire greater expertise, they become more adaptable, they acquire the capability of performing multiple roles, they gain a broader understanding of the work process, and therefore they become more aware of their contribution to the organization and the importance of their role (Flannery, Hofrichter, & Platten, 1996; Uen & Chen, 2004).

In their ideal forms, the three different bases for pay (i.e., job, performance, and skills) reflect three different concepts and strategies for work and organization. Traditional job-based compensation is more feasible in organizations characterized by Scientific Management principles and bureaucracy. In other words, job-based compensation appears to be most appropriate for organizations operating in relatively stable conditions. The performance basis for individual pay is most feasible in more complex and dynamic environments, in which the employment relationship approaches

that of the independent contractor. Finally, person-based compensation is more feasible for work that is not easily defined in terms of specific and stable tasks, and where skill and knowledge constrain tasks to be performed. Each strategy is better suited to a specific situation (see Figure 1). However, the three strategic approaches need not be conceived as mutually exclusive, since they can be combined in an overall compensation program.

The main goal of this paper is to apply previous theoretical models to a team-based sport context. In particular, we will analyse the determinants of the compensation of football players, trying to highlight some potential predictors of individual salaries. In so doing, we will analyze the case of the Italian Football League, the so-called *Serie A*. We have chosen this setting for several reasons. First of all, football is characterized by a high level of interdependence and coordination: at any give time of a game, several players need to coordinate their actions in executing the game plan. Football exhibits also a lower level of specialization between offense and defense positions since many players are involved in both offense and defense activities. These characteristics make football a very good representation of a team-based context.

Furthermore, the Italian *Serie A* represents an interesting setting due to its relevance in terms of economic, social and media impact. As is widely known, the Italian *Serie A* is the most popular sport competition in Italy: every Sunday talk shows about soccer achieve an audience share of about 25%, and the *Serie A* games have, on average, 27,000 spectators (Lega Calcio, 2005). Soccer is also one of the most important Italian industries in economic terms with average annual revenues of approximately six billion euros (Lago, Baroncelli, & Szymansky, 2004). Three of the top 10 European soccer clubs are Italian according to the "Football Money League" 2005 study by Deloitte on annual revenues from day-to-day football business operations. Finally, Italy's most celebrated soccer clubs usually achieve important results in international competitions (e.g., Champions League, UEFA Cup).

	Compensation system	**Characteristics of the work to be performed**	**Characteristics of the organization**
Output/performance	Commissions, gain and profit sharing, suggestion award	Identifiable and controllable outcome	Little need for coordination, minimal supervision
Position	Salary, wage based on working hours	Defined Task, standardized product	Mass production, stable environment and technology, bureaucracy
Person	Skill-based, seniority, professional scale	Variable task and discretional outcomes; appropriate skill levels	Variable product and technology, flexible organization

Figure 1. Pay–work–organization alignment: different models (Mahoney, 1989)

Hypotheses

The traditional approach to compensation claims that the primary determinant of differences in pay is the job or the position held by an individual within an organization (Mahoney, 1989). Accordingly, we could expect that in the football context different tactical roles could play a relevant role in affecting individual compensation. The history of the Golden Ball, a trophy awarded by a jury of journalists to the best player in Europe each calendar year, hints that this might indeed be the case. Forwards and midfielders have been the main recipients of the coveted prize, while only a handful of defenders and one goalkeeper (Jascin, 1960) have been awarded it. Furthermore, stakeholders' enthusiasm (i.e., supporters, sponsors) can be positively affected when a soccer club signs a forward or a very offensive midfielder, rather than a goalkeeper or a defender. Thus, soccer clubs might be more willing to pay high salaries to more offensive players (i.e., forward and offensive midfielder) because, beyond technical considerations, they might also favour an increase in revenues from season tickets, sponsors and media. From these considerations, we derive our first hypothesis.

Hypothesis 1: The more offensive a player's role is, the higher his pay will be[1]

According to the skill-based approach, different pay levels can be determined by differences in individual skills and knowledge (Lawler & Ledford, 1985). Such an approach is consistent with a human capital perspective, which fundamentally asserts that people possess skills, knowledge and abilities that provide economic value to both individuals and organizations (Becker, 1962; King, Burke, & Pemberton, 2005; Youndt *et al*., 1996). From the individual viewpoint, accumulated human capital (i.e., through education, or experience in the labour market) should be expected to increase not only wages, but also the probability of selection for employment (Bielby & Bielby, 1999). In other words, individuals with more human capital are more attractive employees because their skills can be deployed to gain superior performance (Becker, 1975; Youndt *et al*., 1996). Thus, different pay levels could reflect different individual human capital endowments (Ang, Slaughter, & Ng, 2002; Talmor & Wallace, 1998).

Specifically, individual experience accumulated in the relevant context strongly affects the stock of human capital accumulated by individuals. Experience enhances individual skills, since with practice people can refine and improve their individual skills such as, for example, identifying key information, and developing heuristics and rules of thumb for problem-solving (Levitt & March, 1988). In other words, individuals with greater experience accumulated in an industry can develop detailed knowledge about how that industry operates and, in this way, perform better than individuals with less experience (Eisenhardt & Schoonhoven, 1990; Nass, 1994).

As other sport industries, football represents a labour-intensive context, in which experience acquired on the field is very important. In such a context

much of an individual's knowledge, which is closely related to the concept of skills (Nelson & Winter, 1982; Polanyi, 1969), comes from cumulative experience on the job (Berman *et al*., 2002). Furthermore, football is characterized by high levels of complexity and uncertainty, since team performance is affected by several different factors, not all directly manageable by the club and/or its members (e.g., injuries, referees' mistakes). Thus, soccer clubs may be more willing to pay high salaries to more experienced players, since they can be better able to manage critical situations, and to help team mates (especially younger ones). From these considerations, thus, we derive our second hypothesis.

Hypothesis 2: There is a positive relationship between players' experience and their pay

Additionally, a player's reputation would appear to have relevant effects on his pay levels. Reputation involves an estimation of one's character, skills, reliability and other attributes important to exchanges (Rao, 1994). A good reputation could have some favourable consequences for individuals, as the higher an individual's reputation is, the more valuable s/he becomes in both the external or internal labour market (Kilduff & Krackhardt, 1994). An individual's reputation is particularly important in contexts characterized by imperfect information, in which actors have to rely on proxies or signals to make rational assumptions about the intention and future behaviours of other actors (Delmestri, Montanari, & Usai, 2005; Fombrun & Stanley, 1990).

In the football context, a player's reputation may have a twofold effect. First, it can affect how he is perceived among industry insiders, and, thus, his likelihood to be selected by different soccer clubs. Reputation in the soccer industry is a critical factor for individual careers, as players with good reputations move ahead in their careers, while those with poor reputations experience employment difficulties in the "soccer market". A player's reputation also helps structure stakeholders' expectations: when a soccer club signs players with a good reputation, it is likely to experience an increase in revenues from season tickets, sponsors and media. Thus, our third hypothesis is:

Hypothesis 3: There is a positive relationship between players' reputation and their pay

According to the pay-for-performance approach, compensation schemes systematically tying remuneration to output represent effective mechanisms to motivate employees (Cadsby *et al*., 2007). It is well-known that football clubs have not yet deeply experienced contingent pay schemes, where individual pay is strongly linked to individual outcomes. However, we claim that past individual performance can be a critical factor in determining individual pay (see also Bloom, 1999; Vafeas, 2000). For example, when a

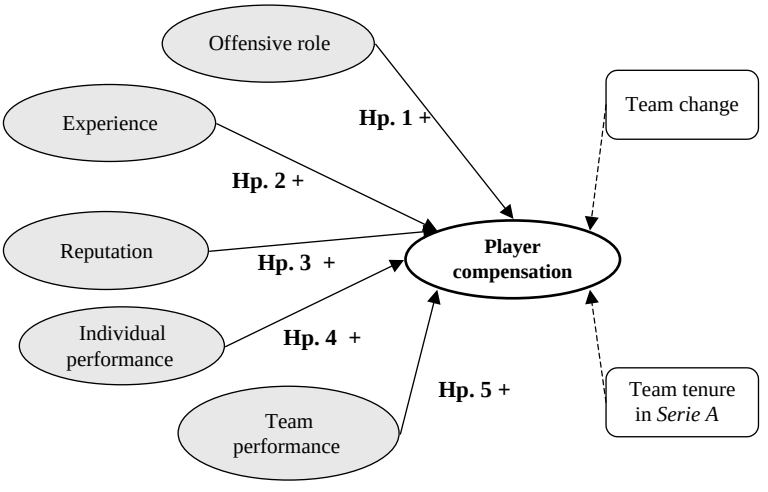

Figure 2. The theoretical model: Determinants of player compensation

football player has played a good season, usually he goes to his club's executives in order to renegotiate his contract. Thus, our fourth hypothesis is:

Hypothesis 4: There is a positive relationship between individual players' performance and their pay

Finally, since football is a team-based sport, we can expect that a player's pay is affected not only by his individual performance, but also by the overall team performance. Thus, we could expect that:

Hypothesis 5: There is a positive relationship between a player's team performance and his pay.

Data and Methods

The Sample

In order to test our hypotheses, we collected data from the 2001–2002 and 2002–2003 seasons. We obtained data from the archive of the *Almanacco Illustrato del calcio Panini*, the most important Italian "encyclopaedia" about soccer. Other sources of data were *Tutto campionato* (for individual statistical evaluations), and national newspapers (for data regarding players' salaries). The overall data set contains information on all players that played in the *Serie A* over that period, for a total of 326 player-year observations.[2]

In order to test our hypotheses, we adopted a standard multiple regression model. However, as our study was longitudinal, the model has a lagged structure that takes into account the fact that some of the variables were measured over five-year moving windows. The five-year window was moved two times, once for each season in which we measured our dependent variables. For example, for players that played in 2001–2002 season, we

used past data for 1996–2001 period; for those of the 2002–2003 season, the data were for the 1997–2002 period.

Dependent Variable

The dependent variable used in this study is *player compensation*. Annual player compensation was taken from the newspaper *Tuttosport*. Each year, *Tuttosport* publishes the salaries of the players of all *Serie A* teams. The distribution of player salaries is highly skewed, due to the so-called "superstar effect", according to which a few individuals in sport industries can enjoy very high earnings (Lucifora & Simmons, 2003; Rosen & Sanderson, 2001). Therefore, we decided to perform a linear transformation of the variable in order to account for this effect, and achieve a better approximation to a normal distribution. Similarly to other studies (Bloom, 1999), we measured player pay as the logarithm of the salary player *i* received in year *t*.

Independent Variables

Tactical role. Our first independent variable is a player's role on the field. We coded this variable assigning the value 0 for goalkeepers, 1 for defenders, 2 for midfielders with more defensive characteristics (e.g., Gattuso, Cristiano Zanetti), 3 for more offensive midfielders (e.g., Rui Costa, Nedved), and 4 for forwards.

Player performance. We calculated this variable using IVG standard, an official statistical index, which measures a player's on-field performance. This index was implemented by an Italian company specialising in statistical elaboration and sport consulting. It is computed on the basis of different actions deployed by players during a football match (i.e., goal, assist, fouls, etc). The variable also makes a distinction between different tactical roles (i.e., goalkeeper, defender, midfielder, forward).

Team performance. We measured this variable by simply computing the competition points gained by each team of our sample at the end of the previous season we considered (i.e., at the end of, respectively, the 2000–2001 and the 2001–2002 seasons).

Player experience. We measured this variable using two different indicators: Age and career seniority (total number of seasons played in the *Serie A*). More specifically, we calculated previous seasons in the *Serie A* over our five-year moving windows.

Player reputation. We implemented this variable calculating, for each player, the number of seasons in which he played for a prestigious soccer club over our five-year moving windows. We considered a soccer club as prestigious, if, in our time windows, it had ranked at least fourth in the final

ranking of its domestic league (i.e., its ranking qualified it to the next Champions League), or achieved the final of the National Cup (i.e., FA Cup, *Coppa Italia*, *Copa del Rey*, etc), or the semi-final of an international competition (i.e., Champions League and UEFA Cup). This variable results in values comprised between 0 and 5. For example, players like Vieri, Maldini, Del Piero, Buffon, who have always played for prestigious clubs present a value of 5, while other players who have played for less famous clubs present a value of 0 (e.g. Bonera of Brescia, Cossato and Lanna of Chievo Verona, etc).

Control Variables

Many other factors may affect a player's pay. In order to take these factors into account, we included two additional variables in our regression models.

Team tenure in the Serie A. The Italian *Serie A* does not have a salary cap; thus, some teams have more financial resources to invest in players' recruitment and salaries. Furthermore, the Italian football league is organized as a hierarchical system based on performance with teams allocated to divisions through promotions and relegations. Since reliable data on revenues, salaries and profitability is very hard to obtain, we include this control variable to take into account the existence of these differences among the teams. We measured team tenure in the *Serie A* by computing the number of seasons a team has played in the *Serie A* in the five-year moving windows. This variable has a 0 to 5 range; the higher the value is, the more a soccer club is used to play in the *Serie A*. This variable does not measure precisely a club's financial resources, but it gives us an idea about its status, reputation, and power within the league. For instance, in our sample of 22 different clubs only seven present a value of five (Juventus, Internazionale, Lazio, AC Milan, Parma, Roma and Udinese).

Team change. We used this variable in order to control whether a player changed team during both the seasons we considered. We used a 0/1 dummy variable, with one indicating that a change event had occurred, and zero indicating that a change event had not occurred.

Results

Table 1 shows the descriptive statistics and correlations between all the variables included in the analysis. The bivariate relationships reveal that almost all our independent variables are significantly related to player compensation (with the only exceptions of age and team change). One interesting result is the significantly positive correlation between past individual and team performance ($p < .001$), which supports the team based nature of football.

Table 2 summarizes the results of our regression model. Specifically, we first tested the effects of control variables (Model 1). Model 2 tests our

Table 1. Descriptive statistics and correlation matrix

Variable	Mean	st. deviation	1	2	3	4	5	6	7	8	9
1. Player pay	1.53	.75	1.000								
2. Team tenure	3.19	1.73	.628***	1.000							
3. Team change (dummy)	.32	.46	−.091	.107	1.000						
4. Tactical role	1.98	1.24	.402*	.002	.119*	1.000					
5. Player performance	18.35	2.17	.271***	.138**	−.035	.103	1.000				
6. Team performance	52.25	13.11	.673***	507***	.071	.003	.234***	1.000			
7. Career seniority	1.29	2.19	.294***	.268***	−.116	−.210**	.112	.222**	1.000		
8. Age	26.61	3.35	.012	.050	−.193**	-.200**	.010	.076	.212*	1.000	
9. Player reputation	1.64	1.37	.410***	.320***	.121	.260*	.260*	.408***	.000	.083	1.000

Notes: ***$p < .001$; **$p < .01$; *$p < .05$

Table 2. Results of regression[a] analysis.

Variables	Model1	Model 2	Model 3	Model 4	Model 5	Model 6
Team tenure	.620 ***	.618 ***	.592***	.324***	.601***	.369**
Team change	.040	.028	.057	.043	.040	−.113
Tactical role		.164 **				.158
Individual performance			.210***	.182***		.247***
Team performance				.474***		.382***
Career seniority					.285**	.232**
Age					−.074	−.034
Player reputation					.203**	.163**
R^2	.360	.417	.433	.575	.503	.643
Adj R^2	.363	.410	.427	.568	.453	.613
N	326	326	326	326	326	326

Note: [a] Standardized regression coefficients are shown;
* $=p<.05$, ** $=p<.01$, *** $=p<.001$

regression model adding a player's tactical role, i.e., our variable related to the job-based approach to compensation. Models 3 and 4 test the pay-for-performance approach variables (i.e., past individual and team performance); while Model 5 tests skill-based approach variables (i.e., the player experience and reputation variables). Finally, Model 6 includes all the independent variables. All five models presented in Table 2 are significant overall as indicated by the F-tests ($p<.001$ for all models); and our final results demonstrate that approximately 65% of the variance of our dependent variable is explained by our model. Furthermore, each model shows an increase in R^2 over the Model 1 with control variables. In particular, in Model 1 we have adjusted $R^2=.36$; in Model 2, adjusted $R^2=.41$; in Model 3, adjusted $R^2=.43$; in Model 4, adjusted $R^2=.57$; Model 5, adjusted $R^2=.45$; and in Model 5, adjusted $R^2=.61$.

Regarding our control variables, it is interesting to point out that only team tenure in the *Serie A* is always strongly significant in all models, while team change is not significant at all. Models 2, 3, 4 and 5 tests separately our independent variables related to the three different approaches to compensation. Results show all our independent variables have significantly positive effects on players' pay, with the only exception of the age variable. Model 6 tests all variables jointly showing all our independent variables are significant (with the exception of age and tactical role).

According to these results, we conclude that our first hypothesis is only partially supported, since the relationship between a player's tactical role and his pay is significant in Model 2 ($\beta=.164$, $p<.01$), but not in Model 6. Also Hypothesis 2 is only partially supported, since career seniority is

significant in both Models 5 and 6, while age is not. On the other hand, other hypotheses are fully supported. Hypothesis 3, which predicts a positive relationship between a player's reputation and his compensation, is supported, since Models 5 and 6 show that player reputation positively impacts player pay ($\beta = .203$, $p < .01$ in Model 5; $\beta = .163$, $p < .01$ in Model 6). Finally, Hypotheses 4 and 5 cannot be rejected, since both individual and team performance positively affect individual pay ($\beta = .182$, $p < .001$ in Model 4; and $\beta = .247$, $p < .001$ in Model 6 for individual performance; and $\beta = .474$, $p < .001$, and $\beta = .382$, $p < .001$ for team performance).

Discussion and Conclusions

This analysis confirms many of our expectations, showing how all our variables positively predict a player's compensation (with the exception of age and, partially, the tactical role). In terms of our theoretical approach, we could argue that the dynamics of players' salaries in the *Serie A* strongly fits with the non-traditional pay plans (strongly with the pay-for-performance approach and partially with the skill-based one), while the traditional pay plan based on the job held by an individual seems not to fit with the Italian football league context.

Now let us discuss the control variables, which, considered independently, explain about 40% of the variance in a player's pay. As shown in the results section, team tenure in the *Serie A* is strongly significant in all models, while team change is not. The latter result seems to demonstrate that there is no relationship between a player's pay and the fact that he has changed team. From an individualist decision-making perspective, such a result suggests that a player's choice to change team does not necessarily affect his salary. Regarding team tenure, we claim that this result is not unexpected. Teams playing in the *Serie A* do not spend the same amount of financial resources on players, coach and technical staff recruitment and salaries. Since reliable data on revenues, salaries and expenditures are very hard to obtain, we included this control variable in order to take account of such differences among the teams. It does not measure precisely a team's financial resources, but it potentially gives us an idea about its status within the league.

However, this is also the main limitation of our study and, thus, it could be helpful for future research to include more accurate measures of a club's financial resources in order to assess their impact on players' pay levels. It would also be interesting for future research to investigate the relationship between a player's pay and his media exposure. Another limitation regards the setting of our study. Despite the relevance of the Italian *Serie A* in economic, social and media terms, future streams of research should analyse other important European Leagues (i.e., English Premier League, Spanish *La Liga*, German *Bundesliga* and French *Ligue 1*) in order to obtain potentially very interesting comparative results.

Despite these limitations, we think our study contributes to research on sport management in several ways. First of all, our findings contribute to an

increased understanding of the nature of football salaries by highlighting how some variables could predict individual compensations. For example, it seems interesting to point out that not only individual past performance, but also team performance, positively affect a player's pay. Such result confirms the team-based nature of football: players should not focus only on their individual goals to achieve an increase in their pay, because the achievement of good team performance strongly affects individual pay in positive terms. In other words, there seems to be room for the alignment of individual and team goals, since if players collaborate to achieve good team performance, they are more likely to increase their individual compensation.

Our findings show the positive impact of reputation on individual compensation. This result is consistent with previous literature that underlines how individual reputation may affect how an individual is perceived among other industry members and, thus, her/his career (Delmestri *et al*., 2005; Kilduff & Krackhardt, 1994). In particular, our results show that players that used to play for prestigious and successful teams are more likely to have higher pay. There could be two potential explanations. First, football clubs may be more willing to pay higher salaries to players with good reputation, since they are supposed to have contributed to the results of their clubs in the previous seasons. Another potential explanation is that since a player's reputation can have an impact on stakeholders' expectations, a football team may want to sign players with a good reputation hoping to experience an increase in revenues from season tickets, sponsors and media. In both cases, a player's reputation works as a signal that guarantees other actors (e.g., coaches, managers, club owners, etc) about his quality making him more valuable in the labour market. In other words, similarly to what happens in other contexts characterized by imperfect information, individual player reputation in the football industry plays a relevant role, since actors seem to rely on it as a proxy or signal to make rational assumptions about future behaviours of other actors.

A player's experience in terms of previous seasons played in *Serie A* is another factor that positively affects pay level. Results show that while age has no impact on a player's pay, the number of seasons previously played in the *Serie A* has a positive impact. The experience variable, thus, might be seen as a something of a contradiction. We could explain these partially contradictory results by reference to some football (and, more generally, sport) peculiarities: the fact that older players (i.e., players older than 32/33 years) usually continue to be members of a club roster, even if they do not play because of physical decline. Thus, they keep on in their professional careers, but they receive a lower pay. Therefore, the number of matches played in the *Serie A* is the critical factor to assess the role of experience, since it is probably a better proxy for players' real contribution to team performance.

Finally, the tactical role held by an individual does not have an impact on his pay. These results demonstrate that soccer salary dynamics are more consistent with non-traditional compensation plan. Specifically, results suggest the emergence of a hybrid compensation model, partially

performance based and partially skill-based, which guarantees a sort of equity in the distribution of salary among different players. After all, a sort of meritocratic system seems to emerge, in which the more experienced, the better reputed and the higher performing a player is, the higher his pay. However, this study does not argue that these results are purposely achieved by football clubs' deliberate strategies regarding the players' compensation management. This research fundamentally shows what factors might have an impact on individual's pay, highlighting, thus, some potential ways for football clubs to improve their management of players' salaries.

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Notes

1. Although we recognize the importance of non-sexist language, the population of *Serie A* players and coaches from which we drew our sample was entirely male. Therefore, for the sake of accuracy we refer to player and coach as "he".
2. We did not consider those players that played less than 1000 minutes during each season considered, since IVG (our index measuring individual performance) is calculated only for those players that have played at least 1000 minutes during a season.

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