

Fraud and corruption in football: lessons from a survey of match-fixing in Cyprus

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Abstract

Purpose – The purpose of this paper is to identify if fraud theory models suggested over the years are applicable to match-fixing and if so, whether the Krambia-Kapardis' (2016) holistic fraud and corruption prevention model can be used to reduce significantly match-fixing in football.

Design/methodology/approach – An online survey was developed by the authors and was administered to football stakeholders in Cyprus, namely, players, referees, coaches and team management.

Findings – The research questions, who are the initiators of match-fixing, why is match-fixing taking place and what is the best way to prevent or reduce match-fixing, have been answered, and these findings have enabled the authors to make policy recommendations.

Research limitations/implications – The survey considered match-fixing in only one sport (football) while the number of respondent categories and the 335 usable questionnaires returned did not allow advanced statistical analysis of the data obtained.

Practical implications – The findings point to the need both for ethics and moral values to be installed in all the stakeholders through training and continuing education. It is also suggested that teams/clubs and related associations acting as regulators ought to implement governance principles and ethical programs, including whistleblowing lines and appoint integrity officers to minimize the match-fixing phenomenon. Furthermore, society, as well as government, sport regulators and sponsors, ought to encourage and demand fair play and integrity in sport through improved measures of governance and accountability and the implementation of ethical audits and public disclosure of audited financial statements of teams. Finally, sports integrity ought to be embedded in school curriculum from a very young age.

Originality/value – To the best of the authors' knowledge, this is an original contribution to knowledge that has impact on the future of sporting fairness and social legitimacy.

Keywords Match-Fixing, Gambling, Football, Fraud, Corruption, Prevention, Whistleblowing

Paper type Research paper

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Estimations of the economic value of the sports industry are open to debate: should they include gambling (some of which is illegal in many countries)? Social costs and benefits? The global sports industry has been estimated to be worth US\$1.3tn (Première Ligue, UCPF, and EY, 2017), and revenues are estimated at over \$500bn in 2022. Masters (2015) asserted that the golden age of sports had been reached, but Caneppele *et al.* (2021) argued that the impact of sport on the global economy is growing. Sports also can have strong educative and formation values as they contribute to integrity, fair play, peace, friendship and solidarity (Bures, 2008), as well as national pride and enmity and to individual socio-economic mobility. Sport is an important component of gambling and vice versa. It is estimated that in 2023 the annual worldwide gross gambling in sport yield will be higher than the \$400bn in 2015 (Sportsbetting statistics, 2022) while Sportradar estimated that match-fixers hauled in profits of about \$177m in 2021 (O' Brian, 2023). The legalisation of online gambling in the US has boosted legal gambling revenues also. Given that sport has multifaced contributions to the wellbeing of individuals and society, a direct impact on the economy of a country, and is linked to illegal activity, it is in the vested interest of society, politicians, educators, researchers and businesses alike to ensure the sustainability of sport through legal and ethical measures.

Unfortunately, it has become evident that sport and corruption have become partially intertwined, and any measures adopted to deal with the problem need to be based on adequate knowledge of the phenomenon at hand. It is argued that such knowledge can be derived by applying fraud models to the match-fixing phenomenon.

1. Corruption in sport

Corruption has not lacked academic and official literature. Kaufmann and Vicente (2011, p. 195) challenged the conventional definition of corruption as the “abuse of public office for private gain” arguing that there is a need to distinguish between illegal corruption, legal corruption and no-corruption. They refer to the private sector agents and politicians, where the two agents are involved in an exchange of favours over time. However, not all private agents have access to the elite, thus, creating an inequality. The collusion of the elite, public sector and the private sector takes the form of nepotism, where individuals or organisations or, as Hellman *et al.* (2000, p. 2) call them, “oligarchs”, significantly influence a State’s decision-making processes to their own advantage or “capture the state”. In the case of sport, of course, the stakeholders are different. We have the elite, who may be team management, politicians or regulators, colluding with the players, referees or other agents in an effort for corruption or fraud to take place. Sports corruption is the kind of illegal activity that needs more than participating partners, and there is a need for collusion.

Bures (2008) studied sport corruption and, in particular, match-fixing, while others have looked at corrupt behaviour of football stakeholders (Amenta and Di Betta, 2021), mega events corruption (Philippou, 2021) and misbehaviour of regulators and politicians interfering in game betting (Masters, 2015). The principal focus in the news media over this century has been on “high” corruption and its suppression involving global sports events run by Fédération Internationale de Football Association (FIFA) or the International Olympic Committee and their members (Benslinger, 2021; Conn, 2018; Jennings, 2012, 2017; Rodchenkov, 2020). However, there is a spectrum from these to lower-level local activities, which receive less attention. While Manoli *et al.* (2016) have looked at conflict of interest or political or government affiliations, Spivey (2012) and Gorse and Chadwick (2011, p. 8) proposed that:

[...] “corruption in sport involves any illegal, immoral or unethical activity that attempts to deliberately distort the result of a sporting contest for the personal material gain of one or more parties involved in that activity”.

Gardiner and Robinson (2017) identified three categories of fraud in sports, i.e. match and spot fixing, irregular financial dealings and bribery in the context of mega events.

Masters’ (2015, p. 114; Graycar, 2015; Graycar and Sidebottom, 2012; Graycar and Prenzler, 2013) have proposed a very comprehensive typology of sport corruption. Masters includes (*inter alia*):

“Type: Bribery, Extortion, Misappropriation, Self-dealing, Conflict of interest, Abuse of discretion, Patronage, Nepotism, Cronyism, Trading in influence, Pay to play, etc. The actual activities include:

- match-fixing – betting related;
- match-fixing – non-betting related;
- doping – to improve performance;
- insider information – for gambling purposes;
- ring-ins – the surreptitious substitution of better athletes, animals or teams;
- nobbling – doping or physical interference to hamper performance;
- salary cap abuses – corruption by clubs;
- scalping – a form of extortion;
- tanking – giving up a match, losing intentionally or not competing, often to rig end of season results for promotion or relegation; and
- host rights bribery to secure prestigious events.” (Masters, 2015, p. 114).

Bribery has been reported in events like the Olympics (Spivey, 2012; Matheson *et al.*, 2017), where “greasing of the wheels” (Kaufmann and Wei, 2000) appeared to have been taking place in an effort for the decision-makers to favour one location as opposed to another. Brooks *et al.* (2013) note that corruption can also take the form of abuse of power or embezzlement. Scandals have not hit only teams and clubs or mega events but governing bodies as well, like the International Tennis Federation and FIFA (Conn, 2018; FIFA, 2020b; ITIA, 2021). Scandal has led to suspensions of officials in some Olympic sports like boxing. Thus, corruption and fraud in sport appear to be at all levels of the pyramid from regulators, federations, organisations, players, team management and referees.

Individuals or organizations that may control the money also control the outcome on results. Maennig (2005) made a distinction between on-field corruption and governance corruption. Philippou (2021) argues that there are minimal cases of the competition or on-field corruption due to controls by the regulators, whereas governance corruption is a bigger problem as it covers sponsors (Kulczycki and Koenigstorfer, 2016), allocation of tickets (Tighe and Rowan, 2020) and allocation and procurement of construction and other related services (Conn, 2018). Philippou (2021), however, fails to also point out that regardless of context, sport and its enthusiasts lose out because trust is eroded. Hardyns *et al.* (2022) found that average football fans had more faith and more trust in sports integrity than loyal football fans.

Masters (2015) asserts that sports have reached the fifth evolutionary trend, that of criminalization, by which is meant more widespread criminality. Håkansson *et al.* (2021) focus on match-fixing and the gambling market. More specifically, they have posited that not only first league teams are affected and that players themselves may be addicted to gambling and, consequently, they too may be involved in match-fixing. Thus, the issue of

unethical and illegal behaviour takes on bigger and broader dimensions, as it also applies to younger or even potential players. This both normalises corrupt behaviour and generates opportunities for lifelong blackmail.

It is evident, therefore, from the above discussion that collusion, as well as greasing-the-wheel (Krambia-Kapardis *et al.*, 2022), are both applicable to corruption in sport because the illegal activity needs two or more actors to occur, and normally, one actor will grease the wheel in order for the illegal transaction or act to take place.

The other side to sport, of course, is the global betting industry which has been estimated for 2021 by Sportradar (2022) to be €1.45tn. Half of that amount relates to football betting (p. 6) while “esports continues to grow in popularity with €46 billion staked across the main game titles in 2021, with the popularity of table tennis also increasing over recent years”. Sportradar has analysed the betting patterns of suspicious matches to identify a pattern in match-fixing, countries and sports prone to suspicious matches. Europe, Asia and South America appeared to be more prone to suspicious matches with football having the biggest slice of the pie, whereas basketball and esports appear to be exhibiting suspicious matches. Given the traditional football calendar, September and October months appear to be the months with the highest suspicious matches. Whilst up until recently, match-fixing was happening predominately in the first two-tier domestic competition, it appears that a growing trend is for match-fixing to occur in lower-level football teams as well (p. 13). Sportradar has reported that half the suspicious cases in 2021 were found to be in the third or lower tier or even in youth football, the Asian betting operators being the primary target for football betting due to loose regulation and because Asian operators use an agent-trading system with several layers of intermediaries. These factors make detection of suspicious football betting difficult for the authorities and regulators to trace.

Sportradar (2022, p. 14) found that the weaker side is most often the one that would initiate the manipulation and away teams are more likely to disguise their “deliberate underperformance” from their own home fans. It expects that match-fixing will increase in lower-level competition, including youth sport. It could be argued, therefore, that irrespective of league or country, football is a sport that needs integrity to be addressed in more detail; otherwise, it will just escalate (Zyglidopoulos and Fleming, 2008), particularly if some individuals or groups have the power to change the rules of the games to benefit themselves (Zyglidopoulos, 2016). Theories and models explaining fraud and corruption can be used to explain sport corruption and to also consider policy implications.

Given the topic of corruption and fraud in sport is so wide, the authors of the current paper will concentrate on match-fixing in football. Match-fixing is directly connected to gambling which, in turn, has financial, legal, psychological and social implications on the gamblers and negative impact on the legitimacy, integrity and trust of the sport generally.

2. Theories explaining fraud and corruption

Cressey's (1971) “fraud triangle” has proven useful for fraud prevention and investigation, especially internal frauds. However, since then, fraud and corruption have evolved with changing patterns of economic relationships. The present authors agree with Soltani (2014), who argued that “the fraud triangle model does not provide an adequate basis for fraud analysis” (p. 271). An improvement to the fraud triangle was suggested by Krambia-Kapardis (2001), who put forward the ROP fraud model, which consists of three components:

- (1) Rationalizations;
- (2) Opportunity (in terms of situational factors and company characteristics); and
- (3) Person (crime-prone person motivated to commit fraud and with the capability to do so), in addition to being under pressure and possessing rationalizations that can be considered part of a person's crime-proneness.

[Krambia-Kapardis \(2001, p. 83\)](#) lists the following crime-prone personality characteristics:

[...] “weak super-ego/self-control; low self-esteem; not being attached to other people; egocentricity; propensity for lying; lack of anxiety; remorse and empathy; over-sensitivity to monetary gain; need for excitement; being indifferent to the consequence of one's behaviour; and impulsivity”.

This has been developed subsequently. [Wolfe and Hermanson \(2004\)](#) proposed the “fraud diamond” model that comprises four components (incentive, opportunity, rationalizations and capability). The fourth component, “capability” added relates to personal traits and abilities that influence to a large degree whether a person will commit a fraud, as proposed by [Krambia-Kapardis](#) a few years earlier.

[Krambia-Kapardis \(2001\)](#) argued that where there are situational factors, “collusion opportunities; absence of capable guardians, perception of low risk of being apprehended for fraud; perception of lenient sentence if convicted”, fraud opportunities are increased (see p. 83). The importance of offenders' rationalisations that help them to justify their offending is also emphasised in the theory of crime put forward by [Sykes and Matza \(1957\)](#) and developed by [Schuchter and Levi \(2015\)](#).

Using the ROP model as well as the theories put forward by [Cressey \(1971\)](#) and [Wolfe and Hermanson \(2004\)](#), it can be argued that match-fixing does not vary from any other type of fraud or corruption insofar as the act of “fixing” constitutes an offence of fraud even when bribery by the accused cannot be proven. We argue that where there exist weak capable guardians, incentives to abuse the system for monetary gain, an opportunity to do so due to weak controls and, finally, rationalizations, then players, team management, referees and coaches are likely to abuse the system because the benefit derived will be greater than the cost incurred if and when apprehended.

The fact that fans and the public are often oblivious to corruption in sport provides an additional opportunity for the fraudsters to proceed with the crime serially. [Hölzen and Meier \(2020\)](#) also argue that the FIFA scandal has shown that football consumers are ineffective in football governance at that level. Attitudes may vary between FIFA and scandals involving individual clubs where outcomes are affected. One could thus hypothesise that if fans believe that high-level corruption is “normal”, then individual scandals might neither surprise nor upset them: this sort of cynicism is an important issue in many contemporary contexts, including political favouritism.

In addition to risk models of individual betting firms, Sportradar Integrity Services ([Sportradar, 2022](#)) developed a monitoring system called Universal Fraud Detection System, which offers assistance to the 100 or so sport federations. It is evident that the complex sports betting and match-fixing requires all stakeholders to endeavour to be one step ahead of the perpetrators, though the technical “arms race” can be challenging, whether in doping or in betting.

Drawing both on [Amenta and Di Betta \(2021\)](#) and [Kolber \(2012\)](#) as well as the relegation of Juventus, a reactive approach to sport integrity is best ensured if the penalty is a financial one and proportional to the wrongdoing. This way, the penalty discourages others from conducting the same misbehaviour. Finally, proportionality of punishment not only has

some specific and general deterrence but also avoids collateral damage to maintain competitive “balance of the championship” (Amenta and Di Betta, 2021, p. 375).

3. Methodology of the Cyprus study

To be able to find a solution to a problem, one needs to study it and find where the match-fixing is occurring, why it is occurring and how it can be prevented. It was decided by the authors to survey football stakeholders in Cyprus. The reason football (soccer) was selected as the sport to study is because, as stated earlier and as found by the Database on Alleged Cases of Corruption on Sport (Caneppele, 2018), it is the sport with the most widespread corrupt behaviour. Cyprus was selected as a country to carry out the study because:

- access was granted by the football associations, the referees and the regulators to survey their members;
- media coverage (Andreou, 2020; Agapiou, 2022a) has brought from the shadows the issue of match-fixing in football and has highlighted it as an issue of concern; and finally,
- media has highlighted that “Cyprus is a central hub of European match-fixing network” (Kathimerini Cyprus, 2020).

It is argued that the findings from this survey will be relevant to and applicable in other countries, at least as an analytical guide.

Following discussions with members of the Committee of Ethics and Safeguarding in Sport and their need to have a holistic view of the situation, the authors of the current article contacted the stakeholders to ensure their support in the survey. The stakeholders contacted were in addition to the Committee of Ethics and Safeguarding in Sport; Cyprus Referees Association; Pancyprian Footballers Association; Cyprus Football Association; and Cyprus Football Coaches Association. Once the questionnaire was prepared, the governing boards of the above-mentioned associations reviewed, commented and made suggestions for its improvement. The survey was made available electronically [1] in Greek and English in March 2022 to the above organisations, who provided the link to all their members, asking them to complete the survey by the end of April of 2022.

The aim of survey was to address the following research questions:

RQ1. Who are the initiators of match-fixing?

RQ2. Why is match-fixing taking place?

RQ3. What is the best way to prevent it?

A total of 1,726 emails were distributed by the stakeholders. The responses received were 650 (38% response rate), with 335 of these being fully completed. The responses that were incomplete were discarded. The sample of the respondents is a representative one as far as position held, age and marital status. The variable gender was not considered, as a very small percentage of women play football or are in management or referees. As shown in Table 1 below, all age groups are represented, and so is the marital status of the respondents, and their current and previous position, documenting that those who did respond were well-placed to have an opinion on the issue.

4. Findings and discussion

Most of the respondents (87%) stated they did not have any suspicion that any game they had participated in the last 12 months was fixed. However, 13% reported that they did have

Table 1.
Respondents'
demographic
characteristics

Age	≤18 years of age 4% 19–25 28% 26–30 16% 31–40 29% ≥41 23%
Marital status	Single 46% Married with children 40% Married without children 8% Divorced/separated/other 6%
Highest league participated	1 st division 39% 2 nd division 18% 3 rd division 14% STOK Elite (4 th div) 13% Women's Division 12%
Current position	Futsal 4% Coach 34% Professional player 22% Amateur player 22%
Previous position	Referee 13% Club management 9% Professional players 31% Amateur player 43% Coach 15% Referee 6% Club management 5%

such a suspicion and 15% of those admitted to having such a suspicion five times in the last 12 months. Also, of those who did have a suspicion, 16% said they had participated in a game that they considered was fixed, and most of them (62%) noted that they became aware that the game was fixed after the game was completed. Regarding the status of the respondents, amateur players had a higher percentage of disclosing they participated in a game that was considered fixed (1 in 4), but this was not statistically significant (SS). However, without Bonferroni's *p*-value adjustment [2] for multiple comparison, amateur players have a statistically significantly higher participation level in a fixed game compared with coaches, but there is no pattern between the status of the respondent and their participation in a fixed game.

The 26–30 year olds are found to be more likely to have participated in a fixed game, with 1 in 5 admitting this: but they are no more likely than others to have done so in the last 12 months. Marital or other demographic characteristics were not correlated with match-fixing.

A higher percentage of respondents (22% as opposed to 13%) reported they had a suspicion that a game they were involved in the last three years was fixed. The comparative findings between knowledge/suspicion in the last 12 months as opposed to three years was for professional players from 16% vs 18%; amateur players 25% vs 26%; coach 13% vs 22%; referee 14% vs 22%; and management 18% vs 41%.

Without the Bonferroni's *p*-value adjustment, management has a SS higher percentage compared to professional players and coaches of having had a suspicion that a game they were involved in the last three years was fixed. It seems that more respondents are willing to admit that they had participated in a fixed game if it happened three years ago as opposed to 12 months earlier. It is possible this means that standards have improved, but it could mean a greater willingness to admit to things further in the past. Whilst there was no statistical significance between the age group and participation in a fixed game in the last three years as opposed to 12 months, all age groups admitted in greater proportion to having a higher percentage in having

participated in games being fixed in three years rather than 12 months. More specifically, the 19–25-year-olds 7% vs 23%; the 26–30 year olds 20% vs 24%; 31–40 year olds 16% vs 18%; and >41 year olds 12% vs 25%.

Interestingly, 1 in 3 respondents replied to the question “What did you do with the knowledge or suspicion that the game was fixed?” despite not responding earlier to having the knowledge or the suspicion that the game was fixed. Thirty-three per cent replied they did not inform anyone, and from the rest who did inform informed a friend or family (24%); another player (14%); team management (9%); some reported the event to a body outside Cyprus (11%); and 9% felt that there was nothing they could do but continue playing in the fixed game. One could surmise that if the team had an integrity officer, it would enable the whistleblower to report to him/her and receive the financial or psychological support needed, though this might depend on how much confidence the potential reporter had in the independence of the integrity officer.

Comparing the position of the respondent and whether they reported the suspicion, it is alarming that most referees (73%) did not inform anyone, perhaps because they had nobody to report to. Without the Bonferroni’s p -value adjustment, the percentage of referees is SS to a greater degree than players, both professional and amateurs. There appears to be no other such statistical significance finding regarding marital status, age, position and the knowledge/suspicion that the game was fixed.

Out of the respondents who had participated in a fixed game, 61% noted that they became aware after the game, especially younger respondents (88%) and professional players (70%). However, no statistical significance has been found between position and the timing of becoming aware that the game was fixed, as all reported that it was after the game. A very small percentage (6%) admitted to having been approached to fix the game they were involved in, but significantly more management claimed that they had *not* been approached. It was found that amateur players and referees have a higher SS percentage than management in being approached to fix the match, whereas Professional players and Coaches have SS higher percentage without the Bonferroni’s p -value adjustment for multiple comparisons. Without the Bonferroni’s p -value adjustment, management has also a higher SS percentage to the response “I prefer not to answer” compared to the other respondents and also a higher statistical significance to having been approached directly or indirectly. We have no method of triangulating these responses, but they appear plausible.

Answers obtained to the three research questions posed:

1. Who are the initiators of match-fixing?

From the findings, it appears that irrespective of position, most (76%) respondents choose management as the initiators of a match being fixed, and 81% of management consider management themselves to be the initiators. The least often selected as initiating are the coaches (25%) and the referees (36%). Given that nowadays teams are owned by individuals and/or legal entities, there are no legal controls over who can be an owner/shareholder of a team, except in some countries like the UK, where since 2004, the fit-and-proper-test (Gross, 2021) is applicable for the Premier League, the Football League, the National League and the Scottish Premier League (with broader governance proposed in 2023) [3]. The fit-and-proper-test expects from those who want to take over a club in the league or own 30% or more of a club to prove they are an ethically sound person and fit to run a football club. Furthermore, teams are profit-making entities, and investors want a return for their investment. Thus, management needs to ensure their entity makes a profit; otherwise, they will be out of a job. One such method would be to fix the match so the investors and then management and shareholders can receive their rewards. This hypothesis by the authors is supported by the findings of the following question.

2. *Why is match-fixing taking place?*

To this multiple-response question, the majority of the respondents (62%) felt it was due to a team's financial difficulties; easy money and low risk 60%; personal financial difficulties 37%; pressure from other football stakeholders 27%; threats and blackmail 22%; and pressure from stakeholders outside football 19%. Concerning the personal financial difficulties of 37%, it should be noted that, according to the Pancyprian Footballers Association, in the past, the Cyprus Football Association turned a blind eye to football contracts of one euro and now has specified a minimum required monthly wage for footballers of €150 (Reporter, 2023). It was interesting to find that players (professional and amateur) do *not* seem to be approached by externals (very low % on pressure by other and outside football stakeholders) to participate in a fixed match, whereas referees *do* seem to be approached by externals (SS higher % compared to players) and also have the highest percentage of being threatened. While all others deem that the main reason for fixing a match is likely to be the Team's financial difficulties, referees maintain it happens solely for easy money, a view that is not incompatible with "financial difficulties" but has a different and more individualised focus. A SS finding without the Bonferroni's *p*-value adjustment is that management has by far the lowest % of threats/blackmail, perhaps because they are the initiators, as found earlier. The respondents aged 26–30 years old have a significantly higher % of being threatened or blackmailed, whereas the older ages have higher % compared to younger on pressure from other football stakeholders/stakeholders outside football.

3. *What is the best way to prevent match-fixing?*

To prevent match-fixing, it would be useful to know the reasons one would not want to be involved in it. The vast majority (68%) noted that they could not live with the shame if exposed; do not want to risk their career (51%); do not want such money (48%); do not want to disappoint their team and fans (43%); do not want to risk having a criminal record (43%); and it is against their morals (4%). Interestingly 20% admitted they were afraid that it would not stop with one case, but they would be blackmailed forever. A SS finding was that referees reported they feared they would be "blackmailed forever". No statistical significance was found between the position and the reason for not participating in a fixed match.

Responding to "How do you think someone can be discouraged from fixing a game", two thirds (68%) believe that tougher penalties should be imposed on those involved in match-fixing, whereas 53% believe it would be discouraged if pay was better and timelier (47%) as well as better working conditions (37%) and improved governance and empowering ethics (38%) existed. Only 15% believed there is a need for assistance to be provided to those addicted to gambling. It has been asserted elsewhere that athletes may be prone to gambling (O'Shea *et al.*, 2021), whereas other researchers have argued that the problem of gambling in athletes may be over-represented (Grall-Bronnec *et al.*, 2016; Håkansson *et al.*, 2018; Vimberg *et al.*, 2020). As would have been expected, statistically, more players – both professional and amateur – argued for the need for better and timely payments, whereas management was the least likely to think so, proposing that players should increase their awareness of the problem and all together improve ethics measures, an option not selected by the players. The older respondents (coaches, referees and management) were more likely to suggest "improved governance/empower ethics" as possible way of addressing the issue rather than the younger (players). As expected, the older the age group, the lower the chance they would want to risk their career and the higher the recognition of the value of improving governance and ethics.

Regarding whistleblowing of fixed games, caution is warranted in inferring actual behaviour from hypothetical responses, but in responding to the question, "If approached to collaborate in a fixed a game would you tell someone in confidence" 73% replied "Yes" and only coaches chose "No I will not tell anyone". Regarding "who would you tell", the respondents said: the Pancyprian Footballers Association (27%); the red button, which is set

up by an outside organisation in collaboration with FIFA (23%); the Police (19%); Committee of Ethics and Safeguarding in Sport (14%); and the Cyprus Football Association (13%). The referees are the only ones who choose to report to the Committee of Ethics and Safeguarding in Sport (1 out of 3), whereas management would tell an independent officer, and players choose the Pancyprian Footballers Association. The older respondents (31+ years) stated that they would be statistically significantly more likely to report both to the Committee of Ethics and Safeguarding in Sport and the police than 19–25-year-olds.

Those who would not tell anyone (14%) would be because they felt nothing would come of it or that they did not trust it will remain confidential (15%). A significant proportion of Professional players did not seem to bother whether it would remain confidential or not (41%). On the other hand, 12 out of 13 referees are keen on their reporting remaining confidential (92.3%).

In developing policies to prevent match-fixing, it is worth knowing what the rewards for someone in fixing a game are. The survey found that for almost all the reward is money, material goods or being transferred to a higher division. Most respondents (73%) did not feel that citizens from specific countries are more prone to match-fixing than others. Regarding what is needed to be done to remedy the problem of match-fixing, 63% would like legal support, 56% advocated integrity training and 44% financial support. The younger respondents (predominately players) are significantly more likely to suggest financial support is needed, whereas to older ones (predominately coaches, referees and management) are significantly more likely to view integrity training is the remedy.

Age and marital status do not appear to be a factor closely associated with being involved in game fixing. However, those who are single are SS more likely to inform another player and more likely to say they do not want to risk their career. Those who are married say they need more governance and empowerment and are more likely to state that they would inform the police and the Committee of Ethics and Safeguarding Sports.

5. Theory and practice

From the findings, it is evident that regardless of whether one uses the Fraud Triangle Model, the ROP model or the Diamond model, the components of fraud occurring are all applicable. Firstly, the team may be facing financial difficulties, may not be able to pay its players or other running expenses, and the players may also be in financial difficulties due to either the fact that they are not paid their monthly wage or due to vices such as gambling. Secondly, due to lack of capable guardian ([Krambia-Kapardis, 2001](#)) or weak internal controls, team management/players/coaches/referees or others may have the opportunity or may create the opportunity to be involved in match-fixing. Finally, those involved in match-fixing would rationalise their behaviour or choice as they appear to have such crime-prone characteristics. Thus, whether we have a match being fixed or a fraud being committed in a company, the criminogenic factors underpinning are the same.

Regarding prevention, the holistic three-component prevention model of [Krambia-Kapardis \(2016\)](#) focuses on the following:

- (1) individual;
- (2) corporation; and
- (3) society can be used to address match-fixing.

Firstly, concerning the individual and as discussed earlier, some stakeholders appear to be concerned with their own integrity and do not want to do something illegal that will jeopardise their career. Therefore, stakeholders can be empowered with moral and ethical values and undergo training to increase the chance that their integrity will be maintained at

high levels. Kihl *et al.* (2008) highlighted that sports teach one values such as respect, meritocracy, adversary, hard work, as well as the young learn to obey the rules and to play fairly. An ethical education strategy was also implemented by Tennis Australia and, together with a collaborative approach with other stakeholders in the country and abroad, had positive results for the sport and for Australian tennis (Harrison and Moller, 2021). These principles can be reinforced through training and continuing education once one takes up a role in football, regardless of whether he/she is a player, referee, coach, member of management or regulator.

In implementing the second component of the Krambia-Kapardis (2016) model for the prevention of match-fixing – the football-club ought to implement governance and ethical programs. A suggestion that is also supported by the findings discussed above. Thus, initially, teams ought to implement and adhere to governance principles [4] of openness and transparency, ethical conduct, competence and capacity, sound financial management, human rights, cultural diversity and social cohesion, accountability, as well as to ensure the governing bodies of teams as well as the regulators are fulfilling the fit-and-proper-person test (Smith, 2022). Gross (2021) suggests that a diversified and inclusive representation on committees, a player-centric decision-making, focus on diversity, skill set, independence, capability and geographical representation when forming committees as well as conflict of interest rules, would contribute towards a “meaningful reform” in sport management. Measures in implementing governance and ethical programs will contribute towards ensuring that players are paid timely, that a retirement financial plan is set out for them, trust is restored in sport and a culture of deviance is addressed (Olukoya and Ogunleye-Bello, 2021).

Furthermore, every football club should not only implement a Code of Conduct (Riedl, 2021) to be adhered by all stakeholders but should also implement a comprehensive ethical program comprising of:

- whistleblowing line;
- training on enforcing the code of conduct;
- appointing an ethics/integrity officer who will deal with complains, allegations and match-fixing (Krambia-Kapardis, 2016); and
- implementation of psychological (Ordway and Lenten, 2021) and legal support for players with gambling habits.

It is also suggested by the authors that a report by the integrity officer ought to be submitted annually to the board of governance of the team, and ought to be published annually on the club’s website. The integrity officer should also be able to support those who are involved in match-fixing and may be facing mental health issues, an issue identified by Moriconi and de Cima (2020). The actions discussed above are all part of the second component of the model proposed by Krambia-Kapardis (2016).

The third component of the Krambia-Kapardis (2016, p. 164) prevention model has several variables, including:

- civil society participation;
- political accountability;
- institutional integrity; and
- ethics and integrity being an integral part of curriculum at schools.

It follows, therefore, that: firstly, civil society and fans generally ought to become more demanding of fair play and integrity being installed in their team’s playing; secondly,

political parties should not be associated with particular teams (Stylianou and Theodoropoulou, 2019) prompting political antagonism and in some situations violent behaviour and at the same time political parties in power having the leverage to make decisions that have an impact on football teams' behaviour, finances, etc., i.e. a case of state-capture. An example of the magnitude of government funding towards sports team is the example of the Cypriot government through initially the Ministry of Tourism contributing to a team €590,000 for the construction of the team's privately-owned stadium, while the State also contributed a further €2m for the same purpose (Agapiou, 2022b). Thus, given that teams in Cyprus receive government funding or sponsorship, they need to be accountable and disclose publicly not only their audited financial reports but also prepare and publicise a governance and ethics report, as noted earlier. Some authors have argued that monitoring (Lipicer and Lajh, 2013) or carrying out ethics audits (McNamee and Fleming, 2007) can be used to safeguard governance and accountability. In advocating monitoring and control, Philippou (2021) agrees with Erickson *et al.* (2019), who argue that whistleblowing and reporting of incidents is an effective way of monitoring and control. In the third component, it is also suggested that integrity and ethics ought to be integrated into the school curriculum, and so should sports integrity. Children from a young age ought to be taught the benefits derived from playing fairly a game or a sport.

Drawing on Masters (2015), implementing hard law and controls at the international will not address the problem of corruption in sports because there are many national parameters, like culture and political dynamics. These measures can be implemented at the local level, whilst international regulators such as FIFA could encourage the implementation of both hard and soft laws. Whilst Masters has advocated a holistic approach, he does not offer any suggestions as to how this could be achieved and what measures should be taken. Similarly, Olukoya and Ogunleye-Bello (2021) are also recommending a holistic approach, but they are only suggesting measures addressing football *clubs*, not the individuals, regulators or other stakeholders, as an effective holistic model will show its impact over a number of years. The present authors propose the implementation of the Krambia-Kapardis (2016) holistic model in preventing fraud and corruption, as match-fixing and spot betting are other forms of fraud and corruption.

6. Conclusions

This article has explained the role of each stakeholder in football match-fixing and how it can be reduced. It has been shown that for match-fixing like any other type of fraud, to occur, the components of crime-prone personality, opportunity, rationalization and capability to fix a match are necessary. However, in match-fixing, there is likely to be collusion, unlike most other frauds, because the referee/coach/team management cannot fix a match without the involvement of a player, and similarly, a player cannot fix a match alone, though a lone player can sometimes fix the result for spot betting. Consequently, all stakeholders need to implement hard and soft laws to ensure that match-fixing is prevented and reduced. The findings point to team management as more likely to initiate match-fixing, and the main reason they are doing that is due to the financial difficulties their team is facing. It is argued that by implementing the three-component holistic model suggested, football will regain its rightful place in society as a sport that instils ethical, moral, educational and team-playing values. However, corruption in betting may not require a change to the match outcome – only the issues on which bets are laid – and that is a more difficult issue to reduce. The evidence about the impact of broader cultural education is not strong enough to show that one can rely on this.

Notes

1. <https://web.cut.ac.cy/limesurvey/index.php/248916?lang=en>
2. The Bonferroni correction is an adjustment made to p -values when several dependent or independent statistical tests are being performed simultaneously on a single data set.
3. www.gov.uk/government/publications/a-sustainable-future-reforming-club-football-governance/a-sustainable-future-reforming-club-football-governance
4. www.coe.int/en/web/good-governance/12-principles

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