

Coaching Tactics and Performance of Professional Athletes in Uasin Gishu County, Kenya

Njoroge Lucy Ng'endo,

Department of Finance and Accounting,
School of Business, Koitaleel Samoei University College.
(A Constituent of the University of Nairobi)
Email: lcymn2014@gamil.com

Dr. Oduor Ismael,

Department of Finance and Accounting,
School of Business, Koitaleel Samoei University College.
(A Constituent of the University of Nairobi)
oduor@ksu.ac.ke

Dr. Mutai Joseph,

Department of Business Administration and Management Science,
School of Business, Koitaleel Samoei University College,
(A Constituent of the University of Nairobi).
mutaij@gmail.com

Abstract

Inadequate of application of coaching tactics adopted by coaches partly contribute to limited transition of armature to professional athletes in most sports. Although it appears probable the extent to which these tactics influence performance of professional athletes in Uasin Gishu County is still unknown. The purpose of the study was to determine how coaching tactics influence performance of professional athletes in Uasin Gishu County, Kenya. Specific objectives were: to determine the extent to which coaching approaches influence performance of professional athletes and to establish how coaching skills influence performance of professional athletes in Uasin Gishu County, Kenya. The study adopted descriptive research design and correlation research designs. A population of 500 armature and professional athletes and coaches in 9 training camps in Uasin Gishu County formed the universe from where a sample of 217 was desired through simple random sampling technique. Questionnaires, interviews and observation schedules were used to gather quantitative and qualitative data. Out of 217 questionnaires distributed 198 were filled giving a 90.46 return rate. Quantitative data was analyzed using frequencies, mean scores and standard deviation while inferential statistical models such as Pearson's Product Moment Correlation and Regression analysis. F -test using p -value method tested null hypotheses at 0.05. Qualitative data was analyzed using patterns, features and themes of the study and also through document analysis. Analysis showed $r = -0.019$, $F(1,197) = 43.6$, $R^2 = 0.1339$ at $p = 0.01 < 0.05$, H_{01} was rejected and it was concluded that coaching approaches has a significant influence performance of professional athletes. With $r = 0.458$, $F(1,197) = 29.29$, $R^2 = 0.105$ at $p = 0.01 < 0.05$, H_{02} was rejected and it was concluded that coaching skills has significant influence on performance of professional athletes. It is therefore recommended that coaching approaches consider personal glory, honour, medals and monetary incentives to motivate armature to attain excellence during competition. It is recommended that coaching sessions consider skills that enhance athlete's resilience and endurance that assist an armature to transition to professional status.

Key words: Performance of Professional Athletes, Coaching Tactics, Coaching Approaches, Coaching Skills

1. INTRODUCTION

Inadequate application of coaching tactics adopted by coaches partly contribute to limited transition of armature to professional athletes in most sports. Although this phenomena appears probable the extent to which these tactics influence performance of professional athletes in Uasin Gishu County is not known. Coaching tactics is a combination of approaches and skills that a coaches use during training athletes. Till and Baker (2020) argue that championship sports have evolved over the years beyond simple events intended to sustain competitive professional events. Modalizadeh, and Kavyani (2023) opined that although ranking during competitions is frequently used as a yardstick strategic practices adopted during training has not evolved fast enough to match cut throat competitions witnessed on tracks. Van Tuyckom (2015) similarly argued that despite exposure in many international competitions most athletes still struggle to transition from armature to professional status and sustain their winning streak at the top tier. That is why Burnett (2010) argued that although many countries participate in international competitions majority of those sports people find it had to sustain their performance streak in professional races.

There are about 100 sports facilities in the North Rift Valley region of Kenya out of which only 10 high performance training camps in Uasin Gishu County(KAAA, 2019). Although such camps are designed to develop world class status, most armature athletes rarely transit to sustained professional competitions even at the peak of their career(ICCE, 2020). Inadequate specialized local home-grown coaches who understand local social dynamics partly contribute to low transition from armature to professional athletes in the developing economies(Zhang, 2022). The net effect of this challenge has led to proliferation of numerous road-side training facilities that do not meet minimum standards or guarantee coaching experiences that guarantee international competition thresholds(KAAA,2019). This means that training that doesn't meet appropriate coaching approaches backed by requisite skills partly contributes to low transition from armature to professional athletic status.

Migration of local athletes to foreign nations, sub-standard coaching especially in majority of road-side training camps is a pointer to inadequate strategic practices adopted by coaches locally. That is why KAAA (2019) recommended that a policy framework to regulate all training camps in Kenya be formulated in order to ensure standardized practice that guarantee higher transition of armature to professional athletes. International Council for Coaching Excellence (ICCE) (2020) similarly acknowledged that coaching approaches and coaching skills are both tactical and technical in transforming athletes but only if coaches first receive proper training. The purpose of the study was to determine how coaching approaches and techniques influence performance of professional athletes in Uasin Gishu County, Kenya.

1.1 Research Objectives

The study was guided by the following research objectives;

- i. To determine the extent to which coaching approaches influence performance of professional athletes in Uasin Gishu County, Kenya.
- ii. To establish how coaching skills influence performance of professional athletes in Uasin Gishu County, Kenya.

1.1.1 Research Hypothesis

The study tested the following Null Hypotheses.

- i. **H₀₁**: Coaching approaches have no significant influence on performance of professional athletes.
- ii. **H₀₂**: Coaching skills have no significant influence on performance of professional athletes.

2.0 LITERATURE REVIEW

The study was grounded on sustainability theory. Empirical literature was reviewed based on this and other supporting theories to operationalize the variables under study and further develop both conceptual and theoretical understanding of the same.

2.1 Performance of Professional Athletes

Most armature athletes either opt out or get relegated from competitive races long before they ever reach international professional status. American National Collegiate Athletic Association (ANCA) (2012) established that only one out of 5,000 high school armature basketball players ever play in American professional league. The study further demonstrated that most hockey players at the County level spends hundreds of hours practicing without ever making it to the national team. Similarly Mangan (2000) showed that in England athletics is instructive in character-building with a dispositional sense of long history, reaching as far back as high schools yet out of the multitudes who practice these sport are subjected to career development that leads to nowhere. This empirical reality is true across different sports disciplines including athletics. By implication therefore it means that extremely low transition rate among armature sports person to professional status do exist. The study sought to determine how The purpose of the study was to determine how coaching techniques and coaching skills influence performance of professional athletes in Uasin Gishu County, Kenya.

2.2.2 Coaching Approaches and Performance of Professional athletes

That relationship exists between coaching approaches and performance of professional athletes is not in doubt. ANCA (2012) established that only one out of 5,000 high school basketball players end up playing in professional league courtesy of coaching approaches. Similarly 99.1% of hockey players spend hundreds of hours practicing to play the sport but only 0.1% ever make it to the top league (Issa & Rub, 2007). In his study Barker-Ruchti (2011) demonstrated that only 1 out of 400 armature athletes who practiced without being coached ever made it to national excellence. Out of the the athletes who reach national glory only 2% make it to professional status. This means that out of 80,000 un-coached armature athletes only 2 have a chance to transition to professional status. Gervis & Dunn (2004) similarly established that sport is instructive in empowering sense and has a long history dating back as far as communal universities of England (Issa & Rub, 2007). From the foregoing empirical review it is apparent that despite developing their talents the number of armature that transition to professional status quite low, and it is even lower for those who self- train.

That evidence exists between coaching practices and successful transition from armature to professional status among athletes is not in doubt. (Baker et al., 2018, Talpey and Siesmaa, 2017, Watson, 2017) separately demonstrated that national pride and honor inculcated through coaching have extensive influence on individual success. Mondalizadeh and Kavyani (2023) similarly showed that only 2.5% of un-coached armature athletes in Finland made it to the national glory from which only 2% competed internationally. This means that only 5 out of 1,000 armature athletes ever make it to the top of the table. Bryson (2018) further established that after the achievement of professional status only those that sustain success in competition continue to reap economic benefits over time. In this study the researcher used economic gains as indicators of performance for professional athletes. However, despite evidence adduced the extent to which coaching approaches influence performance of professional athletes in Kenyan sports remain unknown. Therefore, the purpose of the study was to determine the extent to which coaching approaches influence performance of professional athletes in Uasin Gishu County, Kenya.

2.2.3 Coaching Skills and Performance of Professional Athletes

Skills that coaches possess greatly contribute to sustained athletic development. Mondalizadeh and Kavyani (2023) demonstrated that market demand, competition, and resources requirements determine skills that coaches adopt while training athletes. Suddaby and Viale (2011) similarly showed that coaching skills is associated with highly desirable motivational sports outcome as compared to training without any. In China, Zhang and Mou (2023) used descriptive research design to establish that 88.4% of armature wrestlers considered excelling in drug free sporting as a mark to excellent stardom if their training is undertaken in institutions that have strict anti-doping policies. However, Medic *et al* (2012) observed that highly ethical standards in sports only works well if the national anti-doping framework metes out severe

penalties on anyone caught cheating. This means that performance of professional athletes is possible not necessarily through tangible and intangible coaching skills but also through enforcement of regulations that support fair competition. That a relationship exist between coaching skills and performance of professional athletes is not in doubt. Bloyce and Smith, (2009) used a case study to demonstrate that British Baseball players considered the sport a means of nurturing ethical values and therefore the basis for institutionalized professional elite sporting competitions. Barker-Ruchti (2011) showed that although coaching skills contribute to the transition from armature to professionals athletes, nurturing of ethical values forms the basis of a strong social foundation significantly contribute to their overall development. This means that although coaching skills play a significant role in the performance of professional athletes the extent of its contribution remains unknown. It is for that reason that the study adopted descriptive research design and correlation research design to determine how coaching skills influence performance of professional athletes in Uasin Gishu County, Kenya.

3. METHODOLOGY

The study adopted both descriptive research design and correlation research design. The universe was formed of 500 coaches, armature and professional athletes drawn from nine (9) training camps in Uasin Gishu County. They included five (5) regulated high performance training camps and four unregistered training sites. The five high performance training camps were as follows; Kipchoge Keino, Global Sports, Chagaiya, Dr Rosa and Complete Sports. The unregulated training sites included; Eldoret-Iten site, Kaptagat Road site, Nairobi Road and Plateau Road site. Yamane's (1967) sample size determination formula was used to derive the desired sample size using the fomular shown below;

$$n = \frac{N}{1+N(e)^2}$$

Where;

n = Sample size,

N = Study population,

e = sampling error of $\pm 5\% = 0.05$ thereby giving a confidence level of 95%.

$$\therefore n = \frac{500}{1+500(0.05)^2}$$

$$n = 216.7$$

$$\approx 217$$

Each training site was regarded as a distinct sub-population due to the unique characteristics of those training in those sites. The distribution of athletes in each sub-population by proportion of the sample size is shown in the sampling design table 3.1.

Table 3.1 Sampling Design

S/No	Name of Athletes Training Camp	Number of Athletes in each training Camp	Proportion of the athletes in the study population	No. of respondents picked for the study population as proportion of desired sample
1.	Kipchoge Keino Training Camp	43	0.086	19
2.	Nairobi Road Training Site	54	0.108	23
3.	Global Sports Training	65	0.130	28
4.	Iten Road Training Site	45	0.090	19
5.	Chagaiya Training Camp	30	0.060	13
6.	Plateau Road Training Site	35	0.070	15
7.	Dr Rosa Training Camp	61	0.122	27
8.	Complete Sports Training Camp	71	0.142	31
9.	Kipkenyo Road Side Training Site	96	0.192	42
Total		500	1.000	217

Each of the 9(No) athletics sub-populations had the following sample sizes based on their proportionate sizes in the universe; Kipchoge Keino 43 (0.086), Nairobi Road 54 (0.108), Global Sports 65 (0.130), Iten Road 45 (0.090), Chagaiya 30 (0.060) Plateau Road 35 (0.070), Dr. Rosa 61 (0.122), Complete Sports 71 (0.142) and Kipkenyo 96 (0.192) athletes. Quantitative data was gathered and analyzed descriptively on

a 5-Likert scale using frequencies, percentages, mean scores and standard deviation while inferential statistical models adopted Pearson's Product Moment Correlation and Regression analysis. Null hypotheses tested in which *F*-test using *p*-value method was calculated at 0.05. Qualitative data was analyzed using content analysis based on the themes of the study. Further qualitative secondary data was gathered from available project documents.

4. RESULTS AND ANALYSIS

Table 4.1: Questionnaire Return Rate

S/ No	Name of Athletes Training Camp	No. of questionnai res issued	No. of questionnai res returned	Percentage return rate per Training Camp
1.	Kipchoge Keino Training Camp	19	17	89.47
2.	Nairobi Road Training Site	23	20	86.96
3.	Global Sports Training	28	26	92.85
4.	Iten Road Training Site	19	16	84.21
5.	Chagaiya Training Camp	13	11	84.61
6.	Plateau Road Training Site	15	14	93.33
7.	Dr Rosa Training Camp	27	26	96.30
8.	Complete Sports Training Camp	31	29	93.55
9.	Kipkenyo Road Side Training Site	42	39	92.86
Total		217	198	90.46

questionnaires distributed 198 were filled and returned giving a response rate of 90.46%. The return rate is close to what Medic *et al* (2012) achieved while studying FinTech implementation and commercial attachment in which a return rate of 94% was recorded. Nachmias and Nachmias (2005) recommend that a questionnaire return rate above 75% is good enough for generalization. It means that 90.46% return rate obtained in the study was high enough to provide reliable statistics for generalization of coaching approaches and coaching skills on performance professional athletes in Uasin Gishu County.

4.2 General Information about the respondents

In this section data was analyzed on the general information about the respondents.

4.2.1 Distribution of Respondents by Gender

Gender distribution of respondents was important because athletics performance is gender sensitive. The distribution of respondents by gender is shown in Table 4.2.

Table 4.2 Distribution of Respondents by Gender

Gender	Frequency	Percentage
Male	130	65.67%
Female	68	34.33%
Total	198	100%

Out of 198 respondents in the study, 130(65.67%) were males while 68(34.33%) were females. The distribution shows there were more males than females were in the study. It means gender distribution in the athletics training camps was skewed towards the females. The finding agrees with what Gan & Chong (2015) established that males constituted 66.0% against 34.0% females in 2012 Chinese Olympic training camp. This means that cases where more males than female athletes are coached in high performance training camps is the norm rather than exception. In athletics training camps in Uasin Gishu County there were more males than females because of social-cultural barriers as one coach alluded to when he stated that;

".....more males than their females train here due to socially and culturally constructed beliefs and practices. The female biological nature make them domestic beings....."

This observation was confirmed by records from AK reports that showed that 25 more males than females are likely to turn up for trails during athletics competition due to socially related domestic responsibilities. This observation confirms that performance of professional athletes depend on the involvement of males more than females.

4.2.2 Distribution of Respondents by Age

Respondents age was important in the study because transition from armature to professional competition requires physical fitness and intensive training which is age related. Distribution of respondents by age group is shown in Table 4.3.

Table 4.3: Distribution of Respondents by Age

Age group in Years	Frequency	Percentage
Below 20	59	29.80
21-30	49	24.75
31-40	41	20.70
41-50	29	14.65
51-60	12	6.06
Above 60	8	4.04
Total	198	100.0

Results indicated that out of 198 respondents who participated in the study, 59(29.80%) were below 20 years of age, 49(24.75%) were between 21-30 years, 41(20.70%) were between 31- 40 years, 29(14.65%) were between 41-50 years, 12(6.06%) were between 51- 60 years while 8(4.04%) were above the age of 60 years. The results showed that majority of coaches and athletes in training camps were in physically active age bracket of 21-40 years which is ideal for competitions. This information was corroborated by a coach during interviews when he remarked that;

“..... Physical fitness is what sustains athletes in the tracks. If you are not fit then you have no business training in the camp.....”

KAAA (2019) similarly confirmed that the average ages of athletes who participated in national trials were as follows; those in the age brackets of 18 to 30 years participated in short races, 30 to 38 years participated in middle distance races while 38 to 44 years participated in long races. Records further indicated that they athletes matured their physical endurance increased enabling them to graduate from short to middle and finally to long races. These records suggest that other things held constant, as athletes gain endure through training and during competition their chances of perform better in middle and long distance races increases. IOC (2010) further confirmed that high altitude training camps produce more professional athletes in long distance races than short distance races. These observations confirmed that long years of endurance through coaching influence the transition from armature to professional athletes.

4.2.3 Distribution of Respondents by Level of Education

Information on level of education of respondents is critical in enhancing institutional capacity of individual in physical education, nutrition, diet and general well being.response on the distribution of respondents by their level of education is shown in Table 4.4.

Table 4.4: Distribution of Respondents by Level of Education

Level of Education	Frequency	Percentage
No basic education	12	6.06%
Primary Level	35	17.68%
Secondary Level	102	51.52%
Tertiary level	43	21.72%
University level	6	3.03%
Total	198	100%

Results indicated that out of 198 respondents in the study, 12(6.06%) had no basic education, 35(17.68%) had primary education, 102(51.52%) had secondary education, 43(21.72%) had tertiary education while 6(3.03%) had University education. This observation shows that the distribution of athletes by level of education is a normal curve with even distribution across all levels of education. Those with with secondary education at the highest frequency. This means that athletes in all levels of education are evenly distributed across all training camps as one Coach stated:

“.....passion to excel in sports and especially athletics is borne out of the desire to compete and conquer the field and has nothing to do with the level of education.....”

Secondary data by KAAA (2019) similarly showed that distribution by level of education of athletes competing in national competition was evenly distributed with the majority being secondary school education holders. This observation was also confirmed during focus group discussion majority of participants were secondary school leavers. This means that secondary education offers majority of athletes an opportunity and exposure to explore their talents.

4.2.4 Distribution of Respondents by Years of Experience

The study also sought to determine the number of years' athletes had trained and competed. This information was important because years of training and consistent competition has a relationship with athlete's ability to transition into professional status.

Table 4.5: Distribution of Respondents by Years of Experience

Years of experience	Frequency	Percentage
Below 5 years	69	34.85
6-10 years	53	26.77
11-15 years	45	22.73
Above 15 years	31	15.65
Total	198	100

Results indicated that out of 198 respondents, 69(34.85%) had less than 5 years of experience in training and completion, 53(26.77%) had between 6-10 years of of training and completion experience, 45 (22.73%) had between 11-15 years of experience, and 31(15.65%) had above 10 years of training and completion experience. This meant that less than 40% of respondents had over 11 years experience in training and completion. This implies that the longer the period spent in training and competition the fewer the individual athlete meaning that professionals were much fewer than armature athletes.

This observation agrees with what Mondalizadeh and Kavyani(2023) demonstrated that only only 0.02 of 2.5% of all armature athletes in Finland managed to transition into professional competitions. This finding is supported by interviews when one coach in one training camp stated that;

“.....only one out of one thousand athletes I have coached over the last 10 years attained international recognition by winning an Olympics gold Medal. The rest just faded into athletics history without a trace.....”

Further interrogation revealed that sustained improvement upon gaining international recognition requires a lot of commitment. KAAA (2019) records document that only 1 out of 450 armature athletes who train during County trials make it to national competitions. This implies that the transition rate from armature to professional athletes is still low experience notwithstanding.

4.3 Multicollinearity Test

Table 4.6: Collinearity Test

The multi-collinearity matrix for independent and dependent variable is presented in table 4.6.

*. Correlation is significant at the 0.01 level (2-tailed).

**Critical value for 2-tail *F*-test is 5.02

In table 4.6 results showed that multi-collinearity did not exist between coaching approaches, coaching skills and coaching techniques. Statistical analysis show that performance of professional athletes correlates weakly and negatively with coaching approaches ($r = -0.019$, $p = 0.01$), moderately but positively with coaching skills ($r = 0.458$, $p = 0.01$), and correlates strongly but positively with coaching techniques ($r = 0.549$, $p = 0.02$). All correlation was below 0.8 indicating absence of multi-collinearity. In this study, the assumption of multi-collinearity was not violated for all the variables in objectives one, two, and three.

4.4

	Performance of Professional Athletes	Coaching Approaches	Coaching Skills
Performance of Professional Athletes	1	-0.019**	0.458*
Coaching Approaches	-0.019**	1	0.224
Coaching Skills	0.458*	0.224	1

Performance of Professional Athletes

The results for analysis for performance of professional athletes is presented in table 4.7.

Table 4.7 Performance of Professional Athletes

No.	Item	n	Mean score	Standard Deviation
3a1.	Adoption of coaching approaches may lead to improved performance of athletes	198	2.09	0.563
3a2.	Tactical approaches employed result in improved athletic performance	198	3.42	0.624
3a3.	Lack of adequate training hours may lead to poor performance	198	4.02	0.861
Frequency of coaching		198	3.177	0.683
3b1.	Regular adoption of different coaching methods enhance athlete's 'performance	198	3.97	0.769
3b2.	Irregular training opportunities may lead to slowed performers among professional athletes	198	3.77	0.648
3b3.	Insufficient time for rest between competitions may lead to tactical edge of performance of professional athletes	198	4.07	0.676
Frequency of competition		198	3.94	0.698
3c1.	Adoption coaching techniques may lead to sustained performance of professional athletes	198	3.63	0.863
3c2.	Enforcement of coaching technique lead to sustained performance of athletes	198	3.37	0.665
3c3.	Change of coaching techniques works well in sustaining performance of professional athletes	198	3.45	0.783
Productivity of coaching activities		198	3.483	0.770
Composite mean of performance of professional athletes		145	3.533	0.717

Results indicated that out of 198 respondents who participated in the study, all of them responded to the items on performance of professional athletes. Item 3a1 sought to establish whether adoption of coaching approaches may have led to improved performance of athletes and the response had a mean score of 2.09 and standard deviation of 1.563. This meant that respondents disagreed that Adoption of coaching

approaches may have led to improved performance of athletes. Item 3a2 sought to establish whether tactical approaches adopted resulted in improved athletic performance and the response had a mean score of 3.42 with standard deviation of 0.624. This meant that respondents agreed that tactical approaches adopted resulted in improved athletic performance. Item 3a3 sought to establish whether lack of adequate training hours may have led to poor athletic performance and their response gave a mean score of 4.02 with standard deviation of 0.861. This meant that they agreed that lack of adequate training hours may have led to poor athletic performance. The composite mean score of coaching was 3.177 with standard deviation of 0.683. This meant that respondents were not sure whether or not frequency of training hours may have led to poor athletic performance.

Item 3b1 sought to determine whether regular adoption of different coaching methods enhanced athlete's performance and their response had a mean score of 3.97 with standard deviation of 0.769. This meant that majority of respondents agreed that regular adoption of different coaching methods enhanced athlete's performance. Item 3b2 sought to determine whether irregular training opportunities may have led to slowed performers among professional athletes and their response had a mean score of 3.770 with standard deviation of 0.648. This meant that respondents agreed that irregular training opportunities may have led to slowed performers among professional athletes. Item 3b3 sought to determine whether insufficient time for rest between competitions may have led to reduced tactical edge in performance among professional athletes and their response had a mean score of 4.07 with a standard deviation of 0.676. This meant that respondents agreed that insufficient time for rest between competitions led to reduced tactical edge in performance among professional athletes. The composite mean for frequency of competition by athletes was 3.94 with a standard deviation of 0.698. This meant that respondents agreed that frequency of competition had influence performance of professional athletes.

Item 3c1 sought to determine whether adoption of coaching techniques led to sustained performance of professional athletes and their response had a mean score of 3.63 with a standard deviation of 0.863. This meant that respondents agreed that adoption of coaching techniques led to sustained performance of professional athletes. Item 3c2 sought to determine whether enforcement of coaching techniques led to sustained performance of athletes and the response produced a mean score of 3.37 with a standard deviation of 0.665. This meant that respondents were not sure whether or not enforcement of coaching techniques led to sustained performance of athletes. Item 3c3 sought to determine whether changes in coaching techniques worked well in sustaining performance of professional athletes and the response had a mean score of 3.45 with a standard deviation of 0.783. This meant that respondents agreed that changes in coaching techniques worked well in sustaining performance of professional athletes. The composite score for productivity of coaching activity was 3.483 with standard deviation of 0.770. This meant that productivity of coaching activity has influence on performance of professional athletes.

Interviews revealed that performance of professional athletes was significantly influenced by tactics adopted by coaches as illustrated in the transition of armature athletes training in high performance camps compared to those training along roadside sites as one athlete confessed that;

".....I trained along Iten road for a record 18 months on my own without proper coaching and made little progress until I was taken up at Dr Rosa. Within within only six months I managed to compete in two national competitions with promising results to put me on the pedestal for an international competition....."

This observation meant that the adoption of coaching tactics influenced the athletes enhanced performance. This observation is in agreement with what Suddaby and Viale (2011) established when they demonstrated that coaches were associated with highly desirable motivational sporting outcomes compared to practicing without assistance from coaches. Further inquires from a coach at Kipchoge Keino camp confirmed that the journey to international athletic status requires a lot of tactical input from a professional coach when he stated that;

".....whereas coaching productivity improves performance of athletes, One out in every 100 armature I train ends up get Olympics ticket....."

What this means is that although transition from armature to professional status is low it is more feasible under the adoption of various tactics. The North Rift Athletics Kenya showed that 29 in every 30 international athletes trained in high performance training camps where they were handled professionally.

This meant that road side training sites have a fairly low chances of producing international athletes. These observations mean that coaching tactics have influence on performance of professional athletes.

4.5 Coaching Tactics and Performance of Professional Athletes

Coaching tactics refers to a combination of approaches and skills adopted by coaches during training athletes. In this study coaching approaches and coaching skills were interrogated to determine the extent to which they influence performance of professional athletes in Uasin Gishu County, Kenya.

4.5.1 Coaching Approaches and Performance of Professional Athletes

Nine items sought to establish the level at which coaching approaches influence performance of professional athletes in Uasin Gishu County, Kenya. Items on coaching approaches were analyzed descriptively and results presented as shown in Table 4.8.

Table 4.8: Coaching Approaches and Performance of Professional Athletes

No.	Item	n	Mean score	Standard deviation
1a1	Frequent coaching is sufficient to tap on an athlete's potential	198	3.80	1.047
1a2.	Regular coaching is sufficient to develop an athlete's talent	198	3.89	0.928
1a3.	The frequent of coaching has a bearing on an athlete's progression in competitions	198	3.91	0.971
<i>a.</i> Frequency of Coaching		198	3.87	0.982
1b1.	Frequent competition is all the exposure that an athlete requires to reach international competition.	198	3.99	0.911
1b2.	Frequent competition is adequate expose for armature athlete for international talent development	198	4.21	0.887
1b3.	Structured training approaches enhances competitive edge among athletes	198	3.88	0.784
<i>b.</i> Frequency of Competition		198	4.03	0.861
1c1.	Sustained Coaching is all an athlete requires to excel in competition		3.73	1.396
1c2.	Consistency in athletic performance is critical for improving chances for one to reach international standards	198	2.63	1.350
1c3	International professional success in athletic is an indicator for adoption of sustained coaching approaches	198	3.13	1.291
<i>c.</i> Productivity of Coaching		198	3.163	1.363
Composite for coaching approaches		198	3.687	1.068

Results indicted that out of 198 respondents who participated in the study, all of them responded to items on coaching approaches and performance of professional athletes. Item 1a1 sought to establish whether frequent coaching was sufficient to tap on athlete's potential and the response had a mean score of 3.8 with standard deviation of 1.047. This meant that respondents agreed that frequent coaching was sufficient to tap on athlete's potential. Item 1a2 sought to establish whether regular coaching was sufficient to develop an athlete's talent and their response had a mean score of 3.89 with standard deviation of 0.938. This meant that they agreed that regular coaching was sufficient to develop an athlete's talent. Item 1a3 sought to determine whether frequency of coaching had a bearing on an athlete's progression in competitions and the response had a mean score of 3.91 with a mean score of 0.971. This meant that respondents agreed that frequency of coaching had a bearing on an athlete's progression in competitions.

Frequency of coaching had a mean score of 3.870 and standard deviation of 0.982. This meant that respondents agreed that frequency of coaching has influence on performance of professional athletes.

Item 1b1 sought to determine whether frequent competition was all the exposure that an athlete required to reach international competition and the response had a mean score of 3.99 with standard deviation of 0.911. This meant that respondents agreed that frequent competition was all the exposure that an athlete required to reach international competition. Item 1b2 sought to determine whether frequent competition was adequate exposure for armature athlete for international talent development and the response had a mean score of 4.21 and standard deviation of 0.887. This meant that respondents agreed that frequent competition was adequate exposure for armature athlete for international talent development. Item 1b3 sought to determine whether structured training approaches enhanced competitive edge among athletes and the response had a mean score of 3.88 with a standard deviation of 0.784. This meant that respondents agreed that structured training approaches enhanced competitive edge among athletes. Composite mean score for frequent competition was 4.03 with standard deviation of 0.861. This meant that respondents agreed that competitive edge by armature influence performance of professional athletes.

Item 1c1 sought to determine whether sustained coaching was all an athlete required to excel in competition and the response showed a means score of 3.73 with a standard deviation of 1.396. This meant that respondents agreed that sustained coaching was all an athlete required to excel in competition. Item 1c2 sought to determine whether consistency in athletic performance was critical in improving chances for one to reach international status and the response showed a mean score of 2.63 with a standard deviation of 1.350. This meant that respondents were not sure whether or not consistency in athletic performance was critical for improving chances for one to reach international standards. Item 1c3 sought to determine whether international professional success in athletic was an indicator for adoption of sustained coaching approaches and the response had a means score of 3.13 and standard deviation of 1.291. This meant that respondents were not sure whether or not international professional success in athletics was an indicator for adoption of sustained coaching approaches. Productivity of Coaching had a mean score of 3.163 and a standard deviation of 1.363. This meant that it was not obvious whether or not productivity of coaching necessarily translated into athletics performance of international standards.

Composite for coaching approaches and performance of professional athletes had an overall score of 3.687 and standard deviation of 1.068 implying that coaching approaches has influence on performance of professional athletes. This observation is however at variance with interviews as a group of athletes held during FGD in Kipchoge Keino training camp who suggested that;

“many athlete go through the rigorous training approaches developed by coaches yet only a few of them reach the national competitions and even far much less end up in international competitions.....”.

This observation suggest that adoption of coaching approaches doesn't necessarily translate into a winning streak at national or even international level. Other factors come into play during coaching. That is why (Baker et al., 2018, Talpey and Siesmaa, 2017, Watson, 2017) separately established that national glory and personal honor may push coaches and athletes to go to long term goals for excellence apart from the approaches used in nurturing talent. This means that other factors may act as incentives to produce excellence in performance of professional athletes.

Correlation Analysis

The correlation statistics shown in table 4.7 indicate that performance of professional athletes has a weak negative correlation with coaching approaches ($r = -0.019$, $p = 0.01$). This analysis implies that there was a week negative correlation of 0.019 between coaching approaches and performance of professional athletes in Uasin Gishu County, Kenya. The corresponding regression model was formulated as follows; Performance of professional athletes = f (Coaching Approaches).

$Y = \beta_0 + \beta_1 X_1 + \varepsilon$ Analysis of variance statistics on influence of Coaching approaches on performance of professional athletes was undertaken and is shown on table 4.9.

Table 4.9: ANOVA Statistics on Coaching Approaches on Performance of Professional Athletes

Model	Sum of Squares	df.	Mean Square	F	Sig.
Regression	15.004	1	15.004	F(1,197)	0.00
Residual	88.545	197	0.326	= 43.6	
Total	103.549	198	0,380		
R-squared = 0.1339		Adj. R-squared = 0.142		Root MSE = .571	

In table 4.8 the statistic $F(1, 197) = 43.6$ at $p < 0.05$, shows that the regression model is statistically significant in predicting the dependent variable. The $R^2 = 0.1339$ indicate that 13.39 per cent in performance of professional athletes was explained by coaching approaches. Regression analysis result for the influence of coaching approaches on performance of professional athletes is shown in table 4.9.

Table 4.9: Coefficient of Coaching Approaches on Performance of Professional Athletes

Performance of professional athletes	Unstandardized Coefficient	Standardized beta	Std. Err	T	P>t
Constant	1.907		.209	9.13	0.000
Coaching Approaches	.372	.381	.055	6.79	0.000

In table 4.9 the regression equation indicates that predicted performance of Professional Athletes = 1.907 + 0.381 (Coaching Approaches). The results indicate that a unit increase in Coaching Approaches results in 0.381-unit increase in performance of professional athletes. Correlation analysis established that coaching approaches has a weak negative correlation with performance of professional athletes. Regression analysis indicated that 13.39 percent in Performance of Professional Athletes was explained by coaching approaches.

Testing Hypothesis 1

The null hypothesis 1 was tested at 95% confidence interval given that $p < 0.05$. The null hypothesis was rejected and it was concluded that coaching approaches has a significant influence on performance of professional athletes. These findings are not in agreement with similar studies undertaken by ANCA (2012) who established that only one out of 5,000 high school basketball players ended up playing in professional league was courtesy of coaching approaches.

However, despite the application of coaching approaches consistently in training camps secondary data availed from KAA (2023) showed that out of 30 high altitude training camps in Kenya there exist a deficit between the quality of coaching and possible approaches adopted. Therefore, in order to enhance performance of armature athletes and by extension increase their transition into international competitions coaches need to adopt more strategic practices that map individual talent to athlete's performance. This mapping can be ensured through extensive multi-pronged training strategic practices that expose armature athletes to extensive pressure that consider personal glory, honour, medals and monetary incentives motivate athletes to attain excellence during training. Therefore although descriptive study findings disagree with what KAAA (2023) report it is confirmatory that coaching approaches influence performance of professional athletes.

4.5.2 Coaching Skills and Performance of Professional Athletes

Influence of coaching skills on performance of professional athletes in Uasin Gishu County was presented, analyzed, interpreted and discussed. The items on coaching skills were analyzed descriptively and results are presented as shown in Table 4.10.

Table 4.10: Coaching Skills and Performance of Professional Athletes

S/N		N	Mean score	Standard deviation
2a1.	Prospects for professional athletics do exist through coaching methods	198	4.03	0.619
2a2	All armature athletes usually experience problems competing in international meet	198	4.17	0.677
2a3	Coaching methods assist armature athletes to transitioning into professionals	198	4.07	0.717
Capability of overcoming challenges		198	4.090	0.671
2b1	The frequency of aptitude tests has potential to transformation an armature into international professional stature	198	3.87	0.620
2b2	Frequency of aptitude tests is a sure means for achieving professional athletic status	198	3.95	0.581
2b3	Frequency of aptitude test during training can increase chances of an athlete becoming a professional	198	3.85	0.529
Frequency of aptitude test		198	3.890	0.577
2c1	Effective communication between a coach is a useful in enhancing an athletes' chances of becoming professional	198	3.96	0.574
2c2	Exposure to media during training is less important compared to during competitions	198	3.94	0.582
2c3	Exposure to media during competition is important in performance improvement	198	4.20	0.590
Level of Communication		198	4.033	0.582
Composite for Coaching methods and Performance of professional athletes		198	4.004	0.610

Results indicated that out of 189 respondents who participated in the study, all of them responded to the items on coaching skills and performance of professional athletes. Item 2a1 sought to establish whether prospects for professional athletics existed through coaching skills and the response had a mean score of 4.030 with standard deviation of 0.619. This meant that respondents agreed that prospects for professional athletics existed through coaching skills. Item 2a2 sought to determine whether all armature athletes usually experienced problems competing in international meet and the response had a mean score of 4.17 and standard deviation of 0.677. This meant that respondents agreed that all armature athletes usually experienced problems competing in international meet. Item 2a3 sought to determine whether coaching skills assisted armature athletes to transitioning into professionals and the response showed a mean score of 4.07 with a standard deviation of 0.717. This implied that respondents agreed that coaching skills assisted armature athletes to transitioning into professionals. Capability of overcoming challenges had a mean score of 4.090 and standard deviation of 0.671 which meant that capability of problem solving has influence on performance of professional athletes.

Item 2b1 sought to determine whether the frequency of aptitude tests had potential to transform an armature athlete into international professional stature and the results showed a mean score of 3.87 with a standard deviation of 0.620. This implied that respondents agreed that frequency of aptitude tests had potential to transform an armature athlete into international professional stature. Item 2b2 sought to determine whether frequency of aptitude tests was a sure means for achieving professional athletic status and results showed a mean score of 3.95 with a standard deviation of 0.581. This meant that respondents agreed that frequency of aptitude tests was a sure means for achieving professional athletic status. Item 2b3 sought to determine whether frequency of aptitude test during training could increase chances of an athlete becoming a professional and results showed a means score of 3.85 with a standard deviation of 0.529. This meant that the respondents agreed that frequency of aptitude test during training could increase chances of an athlete becoming a professional. Frequency of aptitude test had a mean score of 3.890 with a standard deviation of 0.577. This meant that respondents agreed that frequency of aptitude test has influence on performance of professional athletes.

Item 2c1 sought to determine whether effective communication between a coach and an armature was useful in enhancing his chances of becoming professional and the results showed a mean score of 3.96 with a standard deviation of 0.574. This meant that the respondents agreed that effective communication between a coach and an armature was useful in enhancing his chances of becoming professional athlete. Item 2c2 sought to determine whether exposure to media during training was less important compared to during competitions and the results showed a mean score of 3.94 with a standard deviation of 0.582. This meant that respondents agreed that exposure to media during training was less important compared to during competitions. Item 2c3 sought to determine whether exposure to media during competition enhanced athletes' performance and the results showed a mean score of 4.20 and a standard deviation of 0.590. This meant that respondents agreed that exposure to media during competition enhanced athletes' performance. The level of communication had a mean score of 4.033 with a standard deviation of 0.582. This meant that communication has influence on performance of professional athletes.

Composite for coaching skills and performance of professional athletes had a mean score of 4.004 and standard deviation of 0.610. This meant that respondents agreed that coaching skills has influence on performance of professional athletes. This observation was supported by both armature athletes and their coaches in Complete Sports Training Camp when they concurred during focus group discussion that;

“ when the coach engages us regularly as part of their communicate about how success is derived prior to outdoor workout we find that it motivates and enhances our endurance in training. This in turn helps us in performance improvement.....”

This observation is in agreement with what Bloyce and Smith, (2009) established when they used a case study to demonstrate that communication in Baseball was an effective tool for nurturing ethical values and therefore formed the basis for institutionalized professional elite sporting competitions. This finding resonates well with what KAAA (2019) showed that communication to the media was the single most expensive promotional venture that ensured armature athletes were motivated into preparing for competitions. This means that effective communication through whatever platform is critical in ensuring athletes raise their competitiveness which in turn favour their transition into professional status. This implies that coaching skills influence performance of professional athletes in Uasin Gishu County Kenya.

Correlation Analysis

The correlation statistics shown in table 4.7 indicate that performance of professional athletes has a moderate but positive correlation with Coaching Skills ($r = 0.458$, $p = 0.01$). Correlation analysis shows that there was a moderate positive correlation of 0.458 between Coaching skills and performance of professional athletes in Uasin Gishu County, Kenya.

Regression Analysis

The corresponding regression model for the hypothesis was identified as follows:
Performance of professional athletes = f (Coaching Skills)

$Y = \beta_0 + \beta_2 X_2 + \varepsilon$ Analysis of variance statistics on influence of coaching skills on performance of professional athletes was undertaken and is shown on table 4.11.

Table 4.11: ANOVA Statistics on Coaching Skills on Performance of Professional Athletes

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	11.061	1	11.061	F(1, 197) = 29.29	0.01
Residual	92.487	197	.340		
Total	103.549	198	.379		
R-squared = 0.105		Adj R-squared = 0.104		Root MSE = .583	

**Critical value for 2-tail F-test = 5.02

In table 4.11, the statistic, $F(1,197) = 29.29$, $p < 0.05$, shows that the regression model is statistically significant in predicting the dependent variable. The $R^2 = 0.105$ indicate that 10.50 per cent in performance of professional athletes is explained by coaching skills. Regression analysis result for the influence of coaching skills on performance of professional athletes is shown in table 4.12.

Table 4.12: Coefficients for Coaching Skills on Performance of Professional Athletes

Performance of professional athletes	Unstandardized Coefficient	Standardized beta	Std. Err.	T	P>t
Constant	2.132		.209	10.22	0.000
Coaching Skills	.316	.327	.055	5.70	0.000

The regression equation indicates that predicted performance of professional athletes = $2.13 + 0.316$ (Coaching Skills). Correlation analysis established that Coaching Skills has a positive and moderate influence on performance of professional Athletes. Regression analysis indicated that 10.50 per cent in performance of professional athletes was explained by coaching skills.

Hypothesis Testing 2

The null hypothesis 2 was tested at 95% confidence interval given that $p < 0.05$ the null hypothesis was rejected and accepted that coaching skills has no significant influence on performance of professional athletes in Uasin Gishu County, Kenya.

Mondalizadeh and Kavyani (2023) observed that market demand, competition, and resources requirements determine methods that coaches adopt while training their teams. Suddaby and Viale (2011) demonstrated that coaching skills are associated with highly desirable motivational sports outcome as compared to training without any. On the other hand Zhang and Mou (2023) used descriptive research design to demonstrate that 88.4% of armature wrestlers considered excelling in drug free sporting as a mark to stardom coaching methods notwithstanding. However, although Medic *et al* (2012) established that high ethical standards in sports are nurtured where honesty is a common practice within the training camp monetary rewards, monetary rewards is the singly important motive for performance in professional athletics. Despite divergence in findings this study shows the extent of the association between coaching skills and performance of professional athletes. This study finding is therefore confirmatory.

5. CONCLUSION AND RECOMMENDATIONS

The study established that coaching approaches has influence on performance of professional athletes. It was also established that other factors such as glory to excel and monetary consideration and approaches used were critical for performance of professional athletes. It was therefore concluded performance of professional athlete is influenced by appropriate coaching approaches only if mapping of individual talent is matched with performance and other associated factors such as glory to excel and monetary considerations. It is recommended that coaches consider mapping individual talent with performance in order to improve and motivate excellence. It is also recommended that personal glory to excel and monetary consideration be considered during coaching armature athletes. The study established that coaching skills has influence on performance of professional athletes but only if the coaches' long years of experience and athletes' training is develop for resilience and endurance and their performance highlighted through communication during practice. It was also concluded that coaching that nurtures resilience and endurance through effective communication among athletes enhances performance. It is therefore recommended that effective communication strategies be incorporated during training because it's a powerful instrument for motivation and preparing for competitions. It is also recommended that training session that enhance an athlete's resilience and endurance be introduced as part of coaching skills to prepare armature athletes into professionals.

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