



Elite Distance Runners and their Management: The State and Nature of Athlete Managers Contribution

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Abstract

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Athlete managers are becoming crucial in facilitating competition opportunities and providing various forms of support to athletes, including technical support related to training, logistical support for training and competition materials, and social support encompassing psychological and life skill assistance. Ethiopian distance runners dedicate significant time and energy to excel in their chosen athletic discipline; in doing so, they prefer to work with athlete managers. To this end, this particular study aimed to assess the state and nature of athlete managers contribution to Ethiopian distance runners participating in elite level by employing concurrent-mixed method. The study was conducted in Addis Ababa, involving a sample of 248 athletes. 60.9% of the respondents were men, and 31% were female elite athletes, with the majority enrolled in long-distance running (68.9%) and government-owned clubs (69%). A 5-point Likert scale questionnaire was developed and used to collect quantitative data from athletes, and a semi-structured interview was employed to purposively selected athletes, coaches, and officials from the Ethiopian Athletics Federation for the qualitative data. Statistical package for social science version 27 (SPSS27) statistical tools were used to process the collected data. For the descriptive statistics, frequency and percentage were used, and non-parametric tests, specifically the Mann-Whitney and Kruskal-Wallis tests, were employed to assess the group difference. The internal consistency for the sub-

Key words/phrases: club enrollment, elite athletes, running discipline, support

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themes of technical, logistic, and social supports was found to be $0.90 \leq \alpha \leq 0.70$. The findings of the study indicated that club setting and running discipline of an athlete significantly influence the support athletes get from their athlete managers; consequently, logistic support and technical support were found to be significantly favored at the expense of social support. Dealing with athlete managers helps athletes get scientific training access and international race opportunities; however, early specialization and overused injury are threats. Hence, emphasis should be given to all aspects of support to help an athlete become fruitful and remain successful.

1. Background of the study

Elite athletes, as professionals, devote much more of their time and energy to excel in their chosen discipline to attain exceptional levels of performance (Ericsson et al., 2003); they are not considered developmental nor compete in a developmental path or system. The stage of participation is quite top; they train and compete at the highest levels of their chosen sport (Sands

et al., 2019). The training and competition capacities are relatively stable, with the nature of participation requiring a repeated, intense exercise. Hence, continuous effort is required for the athlete to become an athlete as he spends hours of training (Noble et al., 2019) so that he/she could be able to get the desired adaptation.

Athletics, also known as track and field, requires better preparation and execution of athletes developed skills. Performance in middle- and

long-distance running is influenced by a variety of factors (Rabadán et al., 2011; Thuany et al., 2023); physiological and social factors are paramount. To reach and remain at the elite level requires working day in and day out; it is not an easy task; hence, support from the external body, the manager, is needed in the production of elite athletes.

The presence of athlete managers is believed to give a light to the sport. The roles of athlete managers are multi-faceted (Staudohar, 2006); they are responsible for supporting athletes under their supervision; they provide supports ranging from training to travel expenses and accommodation. The combination of varied supports in the right way is believed to contribute to the betterment of an athlete's performance. Without a systematic approach, most contemporary research suggests that there is little

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chance of consistency success (Shipway et al., 2013; Böhlke & Robinson, 2009).

The commercialization of elite sports has presented numerous opportunities for revenue generation and global reach (Kulikov et al., 2023); as a result, athlete managers are attracted to take part in sport. In realizing the demands, the link between the athlete and manager becomes crucial, where athlete managers contribute to the betterment of the athletes' athletic progress. They create an opportunity and help athletes show/sell their performance to the rest of the world. The desire to be selected and stay in contact with the managers forces athletes to engage in risky and exhaustive forms of training (Crawley, 2019).

Currently, it is evident to watch Ethiopian athletes being busy in the training session with enthusiasm and no fallback to the training loads rendered to them. The number of athletes of both sexes to deal with athlete managers is increasing from time to time. Many reasons can be listed, but mostly it is evident that athletes are attracted by what is being told, observed, and based on their prior exposure (if any). The emergence of athlete managers, or athlete representatives, in

- What kind of support do elite Ethiopian athletes get from their athlete managers?
- Do athletes in different settings (sex, club, or discipline) get equal support from athlete managers?
- How do athletes perceive the contribution of athlete managers?

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Methodology

A concurrent-mixed methods design was used to collect both quantitative and qualitative data at the same time (Swanson & Holton, 2005; Crsewill J.W. and Creswell J.D., 2005) to maintain the breadth and depth of relevant evidence to understand the state and nature of contribution of athlete managers to elite athletes.

By using Cochran (1963:75) sample size determination formula, from the total of 836 elite athletes registered in EAF dealing with athlete managers, 265 athletes were selected. Of which 248 respondents responded the questionnaire entailing response rate of 94%.

The study area mainly focuses in the capital city of Ethiopia, Addis Ababa, where the majority of the respondents reside. To do so, an ethical review was granted from Addis Ababa University Research Ethics Committee, Institutional Review Board of the College of Natural and Computational Science, Addis Ababa University, on February 7, 2022, with Ref. No CNCSDO/430/14/2022. All participants were provided with information about the purpose and nature of the survey and provided informed consent before entering the main component of the survey. The survey was voluntary and anonymous.

The study utilized a structured questionnaire to gather data from athletes regarding their experience and perception of athlete managers contributions to their athletic endeavors. A 5-

point Likert scale response questionnaire item was developed along with personal information questions such as gender, age, marital status, training experience, and the number of years athletes had worked with managers to understand the sample population. The questionnaire was first prepared in English and then translated to Amharic to ensure comprehension, since Amharic is a native language. Assistance was also provided for specific and special athletes who do not read Amharic but are able to listen. The validation protocol involves expert review and pilot tests prior to the actual data collection.

The collected data from the respondents were analyzed quantitatively to meet the objectives of the study by using the Statistical Package for Social Sciences (SPSS) version 27. In this study, frequency and percentage were used to analyze the demographic characteristics of the athletes'; besides, the normality of the distributions was checked using the Kolmogorov-Smirnov tests; the result shows a non-normal distribution (K-S, $p < 0.05$); hence, a non-parametric test, specifically the Mann-Whitney U and Kruskal-Wallis tests, was employed to assess the group differences in support received by athletes on the basis of their sex, running discipline, and club enrollment. Interview responses were transcribed and thematically analyzed to get an insight of the proposed research queries. Results obtained from both analyses were triangulated to draw a conclusion.

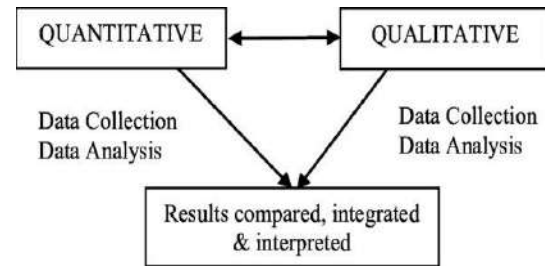


Fig 2. Concurrent Triangulation Method (adopted from Creswell 2003)

Results

3.1. Sample characteristics

The study participants constitute a total of 248 distance runners. Table 1 presents the demographic characteristics of the respondents; accordingly, 60% (N = 151) of the study participants were men. With regard to their running discipline, 68.9% (N = 171) of them are enrolled in long-distance, 13.7% (N = 34) in middle distance, and the remaining 17.3% (N = 43) participate in both middle- and long-distance events. On the other hand, the majority of respondents enroll in governmentally owned clubs (N = 171, 69%).

Table 1. Characteristics of the Respondents

Variables	Athlete Coach				
	N	%	N	%	
Sex	Male	151	60.9%	16	100%
	Female	97	39.1%	-	-
	Total	248	100%	16	100%
Middle distance	34	13.7%	3	18.5%	

Running discipline	Long distance	171	68.9.0 %	9	56.25 %
	Both middle- and long-distance	43	17.3%	4	25%
	Total	248	100%	16	100%
Club enrollment	Governmental	171	69.0%	6	37.5%
	Private	19	7.7%	7	43.75 %
	Individual	27	10.9%	3	18.5%
	Self-help	31	12.5%	-	-
Total	248	100 %	16	100 %	

Source: Survey data 2022/23 N: number of participants

Fig. 1 vividly shows the training age and years of experience in working with athlete managers; the minimum training age of the athletes was found to be one year, with an average training age of 8 ± 4 years, and their exposure with athlete managers was 3.9 ± 2.12 years.

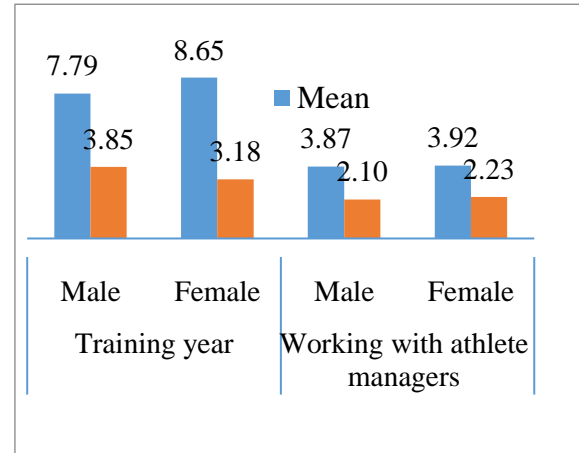


Figure 1. Athletes Training age and experince with athlte managers

3.2 Results of group differences

The study mainly aims to explore athlete managers' contribution to Ethiopian distant runners participating in elite level; to do so, the study employs nonparametric tests, namely Mann-Whitney and Kruskal-Wallis tests. The Man-Whiteny attempts to assess the significant difference in scores on the athlete's sex. The Kruskal-Wallis test, on the other hand, attempts to explore the athlete managers contribution across athletes in different groups (i.e., club enrolment and running discipline).

To assess the significance difference in athlete managers contribution between male and female athletes at the 5% level ($p < .05$), a Mann-Whitney U test was employed. Since the number of cases in the study exceeds twenty, the value of Z will be used to analyze the result.

Table 2. Mann-Whitney U Test based on Sex of Distance Runners (N=248)



Grouping variables	Mean Rank		Z-value	Sig value
	Male (151)	Female (97)		
Logistic support	114.79	139.61	-2.67*	.008
Technical support	120.06	131.42	-1.22	.223
Social support	113.38	141.81	-3.07*	.002

Source: survey data 2022/23; Significant levels: * $p < .05$, ** $p < .01$, *** $p < .001$, N =number of respondents

As it can be seen in Table 2, significant differences were observed in logistic support ($Z = 2.67$, $P = .008$) and social support ($Z = 3.07$, $P = .002$) in both sexes. No significant differences were observed between male and female athletes in the technical support. To further explore the contribution of athlete managers in relation to sex, the mean ranks were compared. Accordingly, female athletes' scores were higher than male athletes in both aspects. This indicates that female athletes receive better logistic and social support from their managers than male athletes.

Table 3 presents the results associated with the running discipline. For the study, the running discipline was divided into three based on the

athlete's participation: middle distance, long distance, and both middle and long distance. A significant difference was observed in the logistics support ($H = 8.662$, $P = .0132$) at $p < .05$. Post hoc pair-wise comparisons (Table 4) were also made for logistics support by the athlete manager; a mean rank score difference exists between athletes in long distance and athletes participating in both middle- and long-distance. Athletes participating in both middle- and long-distance events ($MR = 150.2$) experience better logistics support and advantages than athletes participating only in long distance ($MR = 116$). However, middle-distance athletes did not significantly differ from long-distance athletes and athletes participating in both middle- and long-distance.

Table 3. Kruskal-Wallis H-Test Based on Running Disciplines (N = 248).

Grouping variable	Middle distance	Long distance	Both M&L D	H	Sig value
Logistic support	134.75	116.00	150.20	8.66*	.04
Technical support	124.90	121.43	136.41	1.51	.01
Social support	133.41	121.07	131.09	1.30	.01

Source: Survey data 2022/23; Significant levels: * $p < .05$, ** $p < .01$, *** $p < .001$, N =number of respondents



Post hoc pair-wise comparison (Table.4) of logistics support by the athlete manager indicated that mean rank score difference exists between athletes in long distance and athletes participating in both middle and long distance. Athletes participating in both middle- and long-distance events (MR=150) experience better logistics support and advantages than athletes participating only in long distance. However, middle distance athletes did not significantly differ from long distance and both middle and long distance.

Table 4. Summary of Pairwise Comparisons of Logistic Support on Running Discipline

Variables	Compression	Group	Mean rank	Sig-value
Logistic support	Between LD & MD	LD	116.00	.163
		MD	134.75	
	Between LD & MLD	LD	116.00*	.005
		MLD	150.20*	
	Between MD & MLD	MD	134.45	.347
		MLD	150.20	

Source : Survey data 2022/23 : Significant levels: * $p < .05$, ** $p < .01$, *** $p < .001$, N =number of respondents ; MD: Middle distance, LD: Long distance, MLD: Both-middle and long-distance

In the same way, Kruskal-Wallis H tests were employed to assess the difference in the athlete manager’s contribution across club settings. Club enrollment was divided into four, namely, governmental, private, and individual and self-

help based on the nature of contact with the athletes. As it can be seen from Table 5, the contribution of athlete managers was significant across athletes' club enrollment for all subcategories: logistic support $H(3) = 27.56$, $P = .000$, technical support $H(3) = 13.9$, $P = .004$, and social support $H(3) = 8.30$, $P = .040$ at the 5% significant level.

Table 5. Kruskal-Wallis H-Test on Based on Athletes Club Enrolment (N = 248)

Grouping Variables	Mean rank	Governmental (171)	P	I	S	H	S
Logistic support	109.52	109.52	27.56	0.000	0.000	0.000	0.000
	Technical support	114.74	114.74	13.9	0.004	0.004	0.004
		114.74	114.74	13.9	0.004	0.004	0.004
	Social support	114.74	114.74	8.30	0.040	0.040	0.040
		114.74	114.74	8.30	0.040	0.040	0.040



		9	3	9
Social support	117.78	1	1	1 8 .
Technical support		5	5	2 . 0
Logistic support		2	1	1 3 4
		.	.	. 0 0
		1	3	2
		8	3	3

Source : Survey data 2022/23 : Significant levels: * $p < .05$, ** $p < .01$, *** $p < .001$, N =number of respondents,

To further investigate which club setting is better benefited, post hoc pairwise comparisons were conducted (table 6); accordingly, logistic support revealed that athletes in governmental clubs (MR = 109.52) significantly differ from athletes in private (MR = 171.97) and individual-based club settings (MR = 139.52). In relation to the technical support, athletes in governmental clubs (MR = 114.74) differ significantly from athletes in private settings (MR = 163.39) and self-help (MR = 150.89). With regard to social support, governmental-owned clubs (MR = 117.78) significantly differ from individual-based (MR = 151.33) and privately owned clubs (MR = 152.18).

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Table 6. Summary of Pairwise Comparisons of contributions on athlete’s club enrollment

Groupin	MR	T	Signal
g		value	ue
variable Comparis	Group		ue
Logistic support	Between G & I	Government 109.52 Private 171.97 Individual 139.52	59.22 .000
	Between G&P	Government 109.52 Private 171.97	62.45 .000
Technical support	Between G&P	Government 114.74 Private 163.39	48.65 .005
	Between G&S	Government 114.74 Self help 150.89	36.14 .010
Social support	Between G&I	Government 117.78 Individual 151.33	33.55 .023
	Between G & P	Government 117.78 Private 152.18	34.40 .046

Source: Survey data 2022/23: Significant levels: * $p < .05$, ** $p < .01$, *** $p < .001$, N =number of respondents,MR: Mean Rank, Gt: Government, P: Private, I: Individual

Results of qualitative analysis

Development of an athlete and the sport is believed to be the result of varied stakeholder engaged in athletics world, with this it is clear that everything is not the mandate and responsibility of a given entity like the Ethiopian athletics federation (EAF) or the Sports Commission or a group of individuals or athlete managers; rather, it requires a collaborative effort of varied stakeholders.

The participants of the study were set to respond and reflect regarding the state of athletics, particularly distance running in Ethiopian context along with its fate. As a result, the findings reveal that the sport of athletics is not in a good state, rather it is in alarming state, reflecting that the expected tasks are not undertaken in accordance with the demands of both the athlete and the sport.

The presence of athlete managers scales up the interest and participation of athletes of both sexes with an increasing flow to distance races where athletes can access success and rewards. The thematic analysis with this regard reveal that athlete managers contribute in varied ways, as it can be seen from the figure below (Fig 1), athletes may experience positive support or destruction. Success and failure could also be tied to athletes' exposure to athlete managers.

Maximizing the positive and minimizing the drawback will be a crucial aspect for the athlete's development. A quick shift of discipline makes the road busy as many athletes fled towards road

races, and early specialization brings athletes to stay in the sport for a shorter time and makes athletes prone to injuries (i.e., overused injuries where the athlete is exposed to do more).

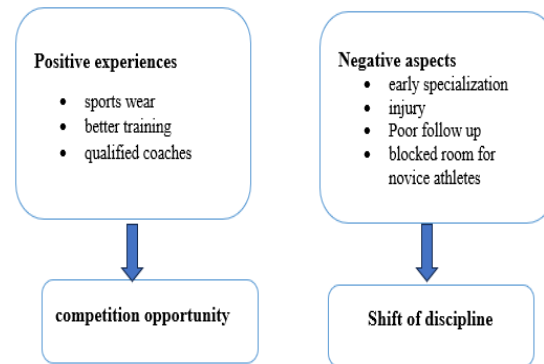


Figure 3. Summarized reflection on the contribution of athlete managers

Discussion

The study mainly focused on assessing the contribution of athlete managers for elite athletes participating in distance races. Non-parametric tests were employed to assess the significant difference across sex, running discipline, and club setting of an elite athlete. An explanatory factor analysis was performed using principal components and Varimax to see the possible correlation between items. Based on the findings, the first five items in the first factor explain the logistic support; the second factor describes the technical support constituting five items; and the last factor describes the social support involving three items. Meanwhile, the internal consistency of the factors was found to be 0.90 for overall contribution, for logistic support (0.84), technical



support (0.82), and social support (0.70). In a nutshell, the internal consistency ranges from 0.70 to 0.90 ($0.90 \leq \alpha \leq 0.70$).

The finding of the study reveals that no significant difference was observed in the athletes related to the contribution/support of athlete managers. The notion of providing better support for all involved in the sport has been practiced and advocated by many, irrespective of their social and physiological differences. This has an enormous effect on athletes better athletic performance and carrier. In line with this finding, WA, the governing body of athletics, ensures equal exposure and winning prizes for both sexes in any of its competitions. In comparison to other sports, it is the only governing body that treats athletes of both sexes equally in number and type of competition and prize money. Which in turn paves the way for females to take part with full confidence and potential; this is the best experience so far from the governing body of athletics. Athletes of both sexes sought to meet the demands of the sport, and hence the introduction of performance-based incentives has become common, where athletes can earn additional rewards for achieving specific benchmarks or records during competitions (Versaci, 2016). This is currently evident in major athletic events, such as marathons and track meets, with a significant increase in prize money, often exceeding millions of dollars. For instance, top marathons now offer prize purses that can reach up to \$2 million, with substantial

bonuses for record-breaking performances (Feldman et al., 2020). Hence, the introduction and application of equity in prize money are motivating for all involved in the races, irrespective of gender difference. What matters most is being ready and performing better; the opportunity is there for both sexes.

In the study, the nature of support athlete managers provide to athletes differs on the basis of the club structure and the running discipline. Accordingly, athletes who participate in both middle- and long-distance and who are enrolled in private organization clubs demand better support, mainly logistic support. The logistic support focuses on coordinating schedules, travel arrangements, and training facilities; participating in more than one event requires better effort and synchronized logistical arrangements. In this regard, athlete managers could play a vital role in coordinating various logistical arrangements, including facilitation of access to medical care and rehabilitation services, which is vital for injured athletes to adhere to recovery protocols (Udry, 1997). In line with this, Pott states that in professional sports, functional teams should be there so that they (athletes) can fully concentrate on practicing their sport and perform their best on the playing field (Pott et al., 2023). From this, we can see that athletes should not be worried about handling necessary equipment in both training and competition; therefore, they are deemed to focus on the training workout and competition readiness. The



issue related to the management of materials and equipment would be the issue of their athletic manager, who sought best performance from their athletes. This implies that poor logistics may impact athletes' overall performance; besides, it is listed as one part of the factors that may lead to a reduction of winning percentages in the analysis of athletes across three major leagues (Herold et al., 2020).

In the study, significant differences were observed in athlete club enrollment in relation to technical support. The technical support is purely related to coaching in the training and competition setting; athlete managers assist in identifying and implementing technical training programs tailored to athletes' needs; they also collaborate with nutritionists and other specialists to optimize athletes' performance through comprehensive support systems (Vinci, 1998). The technical aspect to be provided to the athlete's circles should ensure improved performance. Training makes athletes ready for competition, and competitions are key to helping athletes show their current outstanding performance. Running team NN advocates the fact that it is the individual who delivers the athletic performance on race day (2019). This implies that the athlete's effortful engagement in the training is crucial for better competition performance; hence, the technical support should be structured well; trainings and recovery regimes should also be transferrable, gearing the

athlete to the desired goal when the athlete joins the management team.

The findings of the study suggest social support provided to athletes differs in relation to sex and club structure. Social support, the unseen aspect of the contribution of athlete managers to their respective athletes, goes beyond the technical and logistic support. It is beneficial for athletic performance (Nicholson et al., 2011), which reflects the provision of emotional and psychological support in helping athletes cope with stress and maintain motivation during rehabilitation (Udry, 1997). When providing the support, taking the sex and club structure into consideration is crucial; the support should be done with caution since harmful or insufficient support may not only lead to poor performance but may even increase the level of stress, burnout and dropout (Hartley et al., 2023). In addition to this, the structural limitations, such as short-term contracts, shrinking prize money as a result of the withdrawal of sponsors, and perceptions about the associated risks (Crawley, 2019), should be addressed since they have the potential to retract the athlete from showing his full potential. Therefore, identifying the path to success through a clear vision and strategic goals and implementing structures to fit the context were identified as key aspects of performance management (Molan et al., 2022).

Conclusions



Assessing the nature and state of athlete managers contribution to the athlete was the main concern of the study. Athlete managers largely contribute to the success of an athlete; nevertheless, the club setting and the running discipline impact the nature of support athletes receive. The support from athlete managers can come in different forms, namely logistic, technical, and social; hence, emphasis should be given to all since it builds the full-fledged athlete. The social support is seen as the least valued aspect in the study at the expense of logistic and technical support. As poor coaching and logistics impact, so does emotional support. Pure emphasis on accessing athletes to the international arena and making them generate huge sums of money will not help athletes progress unless it is accompanied by balancing the supports based up on the situation. The study was limited to elite distance runners who are dealing with athlete managers; hence, it lacks generalizability to the whole athletics. However, further investigation in the area will benefit the athlete and sport development, which in turn will benefit the nation at large.

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