The role of information technology in enhancing psychological factors in sports performance: a review

Dr. Xiaokai Yang[1], Dr. Nira Hariyatie Hartani[2], Rabia Tariq[3]

Abstract

The essential purpose of this research study is to determine the role of information technology in enhancing psychological factors in sports performance. This research study is based on the primary research data to determine the research study used questions related to information technology and psychological factors in sports. Information technology is the main independent variable, and the psychological factor includes attention, perception, motivation, learning, and beliefs & benefits. These are all considered mediator variables. Sports performance is the main dependent variable. These questions were fulfilled by different research participants related to sports. For measuring, the research study used SPSS software and generated informative results, including descriptive, one-way ANOVA, the control chart, chi-squares, and variance analysis also explains the regression analysis between them. A successful sporting performance is the result of perseverance, talent, and the capacity to successfully combine all of these elements. In order to maximize performance, athletes, coaches, and support personnel collaborate. They are always looking to get better and push the envelope of what is possible for humans in the world of sports. The overall research found that information technology shows a positive and significant link for enhancing the psychological factors in sports performance.

Keywords: Information Technology (IT), Psychological Factor (PF), Sports Performance (SP), Motivation (M), Perception (P), Learning (L), Beliefs and benefits (B&B).

Introduction

The development of technology has a huge impact on advancing sports-related fields. Information technology used in sports makes athletes more trained in their sports playing skills. Improving athletes' sports performance through sports psychology greatly helps in enhancing athlete performance as an individual or group player. Sport psychology involves the use of special interventions and psychological knowledge to improve athletes' mental and physical well-being. Sports psychology helps the athlete deal with various psychological factors that disturbs his game-playing tactics. The first psychological factor that is developed in athletes is motivation. Sports psychologist works with professional coaches to develop motivational approaches in athletes (Beckner et al., 2022; Sampaio Neto et al., 2020). Motivation towards playing well in sports improvement the athlete playing potential. The motivators that motivate athletes include extrinsic and intrinsic motivators. Extrinsic motivators include trophies and prizes. Extrinsic motivators encourage athletes to improve their performance with every game they play. The intrinsic motivators are the athlete's desire to achieve a particular goal in sports. Both these motivators increase the athlete's game-playing abilities. Anxiety is a psychological attribute that hinders athlete performance in sports. Athletes that face anxiety and stress have a bad mental health state that indirectly affects their game-performing skills (Bakhrom, 2022). Sports psychologist provides help to athletes through an intervention that reduces anxiety symptoms in athletes. Most athletes often feel nervous before playing any game competition. The nervousness in athletes creates panic and anxiety in them that can be overcome through timely interventions provided by sports psychologists. Moreover, sport psychology helps the athlete in his rehabilitation process after a sport injury. Atheltes develops a sense of hopelessness as well as fear in them after facing injury (Coronado et al., 2022). Sport psychologist guides athletes in their rehabilitation process so that athletes can overcome their mental health problems during the rehabilitation period (Boni et al., 2021).

The use of information technology techniques by sports psychologists greatly helps athletes in leveling up their game-playing tactics. There are tremendous uses and benefits of information and communication technology in the sports field (Ginevičienė et al., 2022). The first benefit is related to the management of the database. Databases are sets of records that are available in organized form to get useful information about a particular thing. A database of sports fields helps in getting information about athletes,

[1] The University of Economics in Katowice, Poland
[2] Department of Economics, UCSI University Kuala Lumpur, Malaysia
[3] Department of Management & Administrative Sciences, University of Gujarat Sub Campus Narowal, Pakistan

their performance, and about sports grounds. Managing all the sport-related databases using information technology reduces the chances of error in the database. sports database holds all information about the sport's schedule and time. Using Information technology for managing a database help in updating the database using a technology system (Hu et al., 2022). Making changes in the record of the database and entering new data in database sheets become easy using information technology. Tracking the database related to sports fields by assessing the past year's data can help in predicting the developmental changes in the sports field over the years. Moreover, with the advancement of technology, new scientific tools based on IT principles are used in the present era to make sports-related databases more authentic and safe. The second use of information technology is in the training sessions. Information technology-based techniques are used in sports training programs to improve the efficacy of sports-related training sessions (Malak et al., 2022). In IT-based training sessions, athletes playing tactics are assessed by monitoring their body movements through a monitoring system. The monitoring system uses IT that monitors athletes' performance during the sessions and then provides information about their game-playing skills that helps improve athletes' performance. Moreover, these monitoring systems capture and store a large number of videos and pictures of athletes while he plays sports. Then these videos of athletes can then be used by coaches to pinpoint athletes' mistakes while playing specific sports.

The third benefit of IT in the sports Field is that it is used to make sports equipment. Sports equipment has wearable sensors that work using information technology. These sensors provide information about the athlete's body movement and his physical and mental health state. The wearable sensors are built on software that works on information technology techniques and provides useful data. The data then also in assessing the athlete's performance in the sports field. The last and the most critical use of IT is in video games and the stimulation process (Purcell et al., 2022). The virtual environment created in the sports field provides aids to the athlete in the training sessions. video; based decision-making tools are used by coaches to visualize athlete game playing abilities (Yun-An et al., 2022). Exercise tracking system used by most athletes works by providing information about athletes' physical activity. The athletes that are more physically active are relatively more energetic than athletes performing minimum physical training (Solakis et al., 2022). Higher physical activity makes athletes mentally stable and improves their psychological health.

Integrating information technology with sport psychology improves the psychological factors faced by athletes and thereby improves athletes' performance in various sports areas. There are a lot of psychological factors that are improved using IT. Personality traits like athletes' behavioral and cognitive abilities are improved by providing sport psychological based training to the athlete using IT. The second benefit is that athlete depression symptoms caused by game pressure are overcome by providing sports psychological-based intervention to the athletes using information technology-based techniques. The third benefit of psychological intervention is that it improves the athlete's game-playing tactics by improving his physical and mental health (Duarte et al., 2019; Varillas-Delgado et al., 2022). The physical health of an athlete is improved by indulging him in physical activity, whereas mental health is improved by providing timely intervention therapies to athletes along with physical training. all these benefits of sports psychology in the sports field improve the athlete's psychological factors and make him capable of tackling all the sports-related challenges. Many sports psychology related organization are working with advanced technology to make the sports fields more optimized (Wegierska et al., 2022). Furthermore, sports organization working on the concept of sport psychology plays a critical part in making athletes capable of playing sports with full enthusiasm and developing self-compassion and self-esteem in athletes is another important feature that is induced in athletes by sports psychologists. Also, advancing sports using digital and innovative technology can make athletes more skilled in their games and can help athlete speed up their progress in the sports field.

Research objectives

The Research objectives of this study are to explain the enhancements of psychological factors of athletes using information technology in the field of sports psychology.

This research study is divided into five specific research chapters: the first portion describes the introduction part includes the research objective and research questions. The second section represents the literature review and also explains the hypothesis development. The third section represents the research methodology. This portion describes the research participants, research tools, and techniques and also explains the research model between independent and dependent indicators. The fourth portion describes the result and descriptions. The last section represents that conclusion and presents some recommendations related to them.

Research questions

The main research question is:

What is the role of information technology in enhancing psychological factors in sports performance?

Literature Review

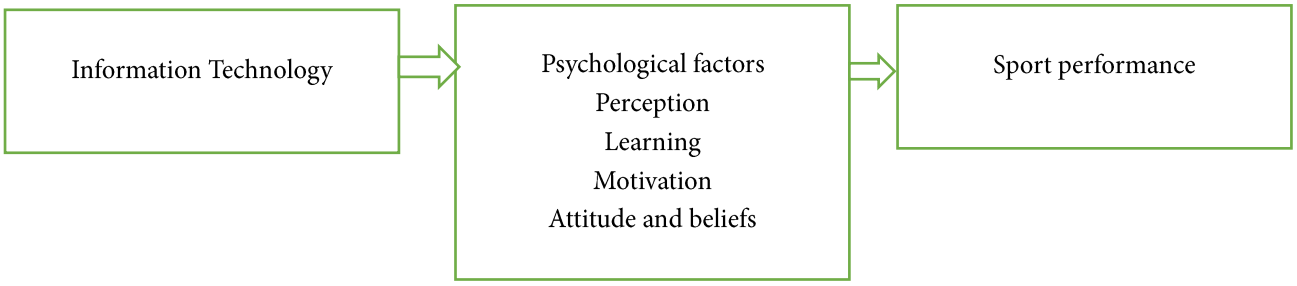
Researchers claimed that wearable technology used in the sports field enhances the performance of athletes. The wearable technology provides information about various sports that helps in understanding various sports-related attributes. wearable sensors are built using information-based sensors that work by gathering more athlete-related information (Eagderi et al., 2017). The two significant wearable sensors used in sports fields include: the global positioning system, as well as inertial measuring unit .both these wearable technology sensors play their unique role in managing different sports programs (Aroganam, Manivannan, & Harrison, 2019). Studies show that various sport psychology-based organizations have claimed that the mental health of an athlete plays a significant part in improving his performance in sports mental health improvement of athletes results in excellent performance in cultural sports. sport psychology base organizations have regarded athlete mental health maintenance as a core component necessary for improving athletic performing abilities (Henriksen et al., 2020). Research studies explain that various energy drinks used by sports player provides them with an instant energy boost and improves their performance. synergistic exercise activity is observed in players that take energy drink shots. Most energy drinks have caffeine and various vitamins that boost up athlete's mental as well as physical abilities and improve his game-playing skills. Sport psychology team predicts that the mental focus of athletes using energy drinks increases and their game performance becomes more enhanced (Jagim et al., 2023). Studies predict that low energy availability is the most prominent reason behind poor athlete performance in various sports. An athlete who consumes fewer calories has a low energy availability problem .this problem is assessed in athletes through an LEA questionary test.to overcome the low energy availability problem in athletes, they are provided proper counseling by sport psychology teams about the importance of the right amount of calorie intake.by solving the LEA problem, their energy levels are enhanced, and their performance in their respective sports improves (Logue et al., 2020). Moreover, the need for various nutritional supplements is increasing because of the tremendous benefits of these supplements for improving sports athletes performing abilities. arginine and citrulline-based supplements are used by athletes to improve their cardiovascular health (Purcell, Gwyther, & Rice, 2019). Studies show that the ability of athletes to perform well in any sport depends upon the betterment of their mental health. athletes suffering from mental health-related problems are unable to perform in the sports field due to stress and anxiety. sports psychology suggests that using information technology-based techniques helps in predicting athletes' mental health states. awareness about the ill mental health of athletes is provided through the use of information technology-based programs by sport psychology-based sports teams (Park et al., 2023). Studies explain that athletes' body and mind both play a major role in athletic sports performance. developing special psychological attributes in athletes not only improves their mental state but also strengthens their game-playing tactics. These psychological attributes include mental toughness as well as self-compassion. Athletes having good mental states perform far better than athletes having stress and anxiety problems (Röthlin et al., 2023). Studies claim that technology and science greatly help the sports field development, but distinguishing science from pseudoscience is critical for making sure that athletes are getting proper benefits from science. The researchers claim that pseudoscience and its related technologies badly impact the athletes performing abilities, so it is important to ensure that scientific technology is used in the sports field instead of pseudoscience. furthermore, studies show that only skilled scientists are capable of distinguishing pseudoscience from science and can help the sports field form using pseudo-technology techniques for improving athlete performance (Tiller, Sullivan, & Ekkekakis, 2023). Studies show that biomechanical technology-based treatment techniques are used in the sports field to treat knee injuries of athletes. The knee arthroplasty is done using the biomechanical technique, as this technique is based on the machine learning principle (Tokgoz et al., 2023). Researchers claim that digital technology greatly impacts the psychological factors of college athletes. most athletes at the college and university level are provided sports training using the digital technology system to improve their game-playing tactics and to make them adaptable to the modern sports psychology .technology used in the sports field potentially impacts the lives of athletes and makes them more dedicated towards their game (Yadav & Reddy, 2023). Studies show that team resilience capability is an important psychological factor that improves the cognitive and behavioral factors of athletes in a team. The improvement in athletes' abilities as a team enhances their performance in a particular sport. TRC factor is mostly involved in improving team performance and not only individual athletic performance (Cheng et al., 2023). Scholars studies explain that the technological revolution has changed the working ability of any field, including sports. The impact of technology in the sports field is that it provides immense opportunities for every athlete to improve his game performance (Glebova,

Gerke, & Book, 2023). Studies suggest that mental fatigue in athletes is a big problem responsible for athletes' poor performance in the sports field .various information technology-based methodologies are used by sports psychology teams for improving athletes' mental health state and for making athletes capable of playing with full potential (Habay et al., 2023). Scholars explain that using nanotechnology for making sportswear holds great importance in the sports field. Smart sportswear made using nanotechnology help in improving the performance of sports athletes. most of the sports flooring in the sports field is done using nanoparticles (Hassabo et al., 2023). Studies based on randomized design predict that cognitive and behavioral interventions play their part in improving the mental state of athletes, thereby improving their sports performing skills. A psychological skill training program based on advanced technological techniques helps in providing mindfulness-based training to athletes (Hut et al., 2023). Studies show that athletes that are more physically active have improved mental states. physically active athletes have less chance of developing any mental health disorder (Parenti & Randall, 2020). Sport psychology teams ensure that each athlete playing any sports game is physically active so that their mental health state remains stable and they can perform excellently in their respective sports field (Mahindru, Patil, & Agrawal, 2023). Studies explain that athletes playing in the Olympics are provided mindfulness interventions to make their mental health stable and to ensure their better performance in sports Olympics (Poucher, Tamminen, & Kerr, 2023). Scholar predicts that virtual reality technology used in the sports field helps in bettering both athletes learning abilities and coach training skills (Rojas-Sánchez, Palos-Sánchez, & Folgado-Fernández, 2023). Scholars explain that for improving mental health awareness among sports athletes, digital technologies have been used widely (Satyaninrum et al., 2023). Studies claim that the performance of basketball players improves to a great extent by providing them with mindfulness-based interventions using information technology-based techniques (Wang, Lei, & Wu, 2023).

Research methodology

This research study represents The Role of information technology in enhancing psychological factors in sports performance. This research study is based on the primary research data analysis to determine whether the research study used SPSS software and generated results related to information technology and psychological factors, also sports performance. The descriptive statistic analysis, the paired correlation analysis, and the one-way ANOVA test analysis also present the control chart related to them. The research also describes the graphical analysis and numerical analysis between them.

Theoretical Framework



Role of Information Technology in Sports Performance

The use of information technology (IT) in the field of athletic performance has increased, revolutionizing how athletes, coaches, and teams approach practice, analysis, and competition. There are a few examples of how IT is applied to sports performance:

IT technologies are used to gather and analyze vast amounts of data pertaining to athletes' performance. Biometric data (heart rate, GPS tracking, etc.), gaming statistics, and other pertinent metrics can be included in this data. Coaches and sports scientists can find patterns, areas of weakness, and opportunities for development by analyzing this data.

Performance tracking: During practice and competition, athletes' performances are tracked using wearable technology and sensors. These gadgets may monitor several performance indicators, including movement, speed, distance traveled, acceleration, and others. This real-time data offers perceptions of the workload, level of exhaustion, and the danger of injury for an athlete.

Video analysis: Coaches may record and review an athlete's performance during practice and contests thanks to high-definition video technology and IT applications. In order to create more successful practice sessions and game strategies, video analysis can assist in discovering technical mistakes, tactical flaws, and strategic chances.

Augmented reality (AR) and virtual reality (VR) technologies have found uses in improving athletic performance. Athletes can utilize virtual reality (VR) to visualize challenging plays, situations, or opponents, facilitating quicker and wiser game-time decisions. In-game information can be provided by overlaying real-time data and statistics onto athletes' fields of view.

Injury Prevention and Rehabilitation: IT systems that monitor athletes' training loads and look for early warning indications of exhaustion or overuse can prevent injuries. It is also employed in injury rehabilitation, where specially created software monitors a player's development and adherence to the prescribed course of action.

Collaboration and communication: IT enables smooth communication between trainers, athletes, and helpers. Platforms and apps for collaboration make it simple to share training schedules, videos, performance statistics, and other pertinent information.

E-Sports and Gaming: Competitive video gaming-based e-sports have grown to constitute a sizable portion of the sports sector. It is essential for organizing and running e-sports competitions and events as well as for analyzing player performance information.

Fan Engagement: Through various digital platforms and social media channels, IT improves fan engagement. Fans have access to highlights, interactive information, and real-time game statistics, which enhances their overall experience.

Performance Prediction: Machine learning and artificial intelligence algorithms are used to analyze historical data and forecast future results. Coaches can use these projections to help them make wise judgments and create winning game strategies.

Result and Descriptions

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
information technology	50	1.00	3.00	1.6800	.71257
psychological factors	50	1.00	4.00	1.4600	.67643
perception	50	1.00	3.00	1.5000	.64681
motivation	50	1.00	3.00	1.4200	.57463
attitude and beliefs	50	1.00	3.00	1.4600	.64555
learning	50	1.00	3.00	1.8800	.71827
sport performance	50	1.00	4.00	1.7200	.75701
Valid N (listwise)	50				

The above result represents that descriptive statistic analysis results describe minimum values, maximum values, and also the mean value and standard deviation. The result describes information technology as mainly independent its mean value is 1.6800, and its standard deviation rate is 0.71, showing 715 deviate from the mean. The psychological factors are the mediator variable. Its mean value is 1.4600, and the standard deviation rate is 0.67, showing a 67% deviation from the mean. The psychological factor included perception, motivation, attitude, and beliefs. Also that learning these are all subparts of psychological factors. According to the result, its mean values are 1.5000, 1.42000, 1.4600, and 1.8800. All of them show positive average values of each variable. The standard deviation rate of these sub-indicators is 0.64, 0.57, 0.71, showing 64%, 57%, AND 71% deviation from the mean. Sports performance is the main dependent variable, according to the result. Its mean value is 1.72000, and the standard deviation rate is 0.75, showing that 75% deviation values each other. According to the result, its overall minimum value is 1.000, and the maximum value is 3.000; respectively, the total number of observations is 50.

Psychological Factors

Sports performance is greatly influenced by psychological aspects since they have a big impact on an athlete's thinking, focus, motivation, and entire mental state. The following are some of the main psychological elements that affect athletic performance. In athletics, self-confidence is essential. Athletes who have confidence in their talents are more likely to give their best effort and keep going despite difficulties. High self-esteem can improvement motivation and aid athletes in remaining cool under pressure. An athlete's motivation level affects how committed they are to training and competition. Better performance and long-term success are frequently linked to intrinsic motivation, which derives from internal elements like passion and satisfaction. The capacity of an athlete to maintain composure, resilience, and focus under pressure is referred to as mental toughness. High mental toughness athletes can persevere through difficulties, disappointments, and distractions while still performing at a high level. For the best possible athletic performance, one must be able to focus and concentrate. Athletes must tune out outside

noise, focus entirely on the task at hand, and pay attention to all pertinent cues and behaviors. Athletes need to control their emotions, especially under pressure. Keeping your emotions under control might help you make better decisions and avoid performance setbacks. In team sports, strong team dynamics and cohesiveness lead to improved teamwork, trust, and support, which can improve performance as a whole. A strong and encouraging coach-athlete relationship can increase an athlete's motivation, self-confidence, and dedication to training.

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	information technology & psychological factors	50	.058	.691
Pair 2	information technology & sport performance	50	.247	.084
Pair 3	perception & information technology	50	.221	.122
Pair 4	motivation & sports performance	50	-.006	.969
Pair 5	attitude and beliefs & sports performance	50	.102	.481
Pair 6	learning & information technology	50	-.037	.800

The above result describes that paired sample correlations result to describe the first pair as information technology and psychological factors. Its correlation value is 0.058, and a significant value is 0.691, showing that positive and significant rate between them. The second pair is information technology and sports performance, which describe a correlation rate is 0.247 and a significant rate is 0.084, showing that 8% significant level between them. The third pair is perception and information technology, which shows that the correlation rate is 0.221 and the significant rate is 0.122 it's, presenting the positive and 12% significant level between them. The fourth pair is motivation and sports performance shows that insignificant and negative link between them. The fifth pair is attitude and beliefs with sports performance. Its correlation rate is 0.102, and the significant rate is 0.481, respectively. The last pair represent learning and information technology. Its correlation value is -0.037, and the significant rate is 0.800, showing that negative, but is a significant link between learning and sports performance.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.747	24.963	24.963	1.747	24.963	24.963
2	1.408	20.115	45.078	1.408	20.115	45.078
3	1.103	15.750	60.828	1.103	15.750	60.828
4	.921	13.153	73.981			
5	.672	9.605	83.586			
6	.632	9.032	92.618			
7	.517	7.382	100.000			

Extraction Method: Principal Component Analysis.

The above result describes that the total Variance explained analysis result presents the initial eigenvalues, including the % of Variance and % of cumulative rates of each component. The total values are 1.747, 1.408, 1.103, 0.921, 0.672, also that 0.517. All values show positive rates for each component. The % variance shows 24.963, 20.115, 15.750, 13.153, also that 9.605. All rates present positive variance values for each factor. Similarly, the extraction sums of the squared show that 24.963, 20.115, and 15.750 rates of Variance and 24.963, 45.078, and 60.828, respectively, show positive rates of each factor.

Important Elements of Sports Performance:

Physical fitness: Athletes must have the physical characteristics and levels of fitness essential for their sport. This comprises physical attributes, including strength, speed, endurance, flexibility, agility, and coordination. Specific technical abilities are required for each sport, such as shooting in basketball, dribbling in soccer, serving in tennis, or swimming strokes. High-level performance requires mastering these abilities. Both team sports and individual tournaments require players to comprehend and use strategic strategies. This entails selecting choices depending on the game's flow, one's own skills, the weaknesses of the opposition, and other factors. As was previously said, psychological variables are important for athletic success. The ability of an athlete to perform at their best can be affected by factors such as mental toughness, focus, motivation, confidence, and emotional control.

Structured, diligent training is essential to sporting success. Athletes must continually practice honing their technical and physical abilities as well as their mental toughness. Maintaining an athlete's physical health and maximizing performance requires a proper diet and sufficient rest. In order to avoid injuries and keep performance at its highest level, proper recuperation techniques are crucial. Competitors must be able to handle pressure and perform under stressful circumstances in order to perform at a high level. Athletes must develop the ability to control their anxiety and remain composed under pressure. Because sports are dynamic, athletes must be able to change with the times and be willing to constantly learn new things and refine their techniques. Consistent sports performance requires reducing the risk of injuries and managing any injuries that do arise. Setting goals that are both tough and achievable can provide athletes with direction and inspiration as they strive for excellence.

Test Statistics

	information technology	psychological factors	perception	motivation	attitude and beliefs	learning	sport performance
Chi-Square	8.680[a]	47.760[b]	18.760[a]	25.240[a]	22.120[a]	5.920[a]	26.960[b]
df	2	3	2	2	2	2	3
Asymp. Sig.	.013	.000	.000	.000	.000	.052	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 16.7.
b. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 12.5.

The above result describes that the chi-square analysis result shows test statistics and chi-square values, also the significant value of each variable. The chi-square values are 8.680, 47.760, 18.760, 25.240, 22.120, and 5.920, showing positive chi-square rates of independent and dependent variables. The overall significant value is 0.000, showing a 100% significant level between them.

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.402	.576		2.436	.019
	information technology	.230	.159	.217	1.452	.154
	psychological factors	.033	.186	.030	.178	.859
	perception	.183	.177	.156	1.037	.306
	motivation	-.097	.199	-.074	-.488	.628
	attitude and beliefs	.065	.184	.056	.355	.724
	learning	-.186	.162	-.176	-1.148	.257

a. Dependent Variable: sport performance

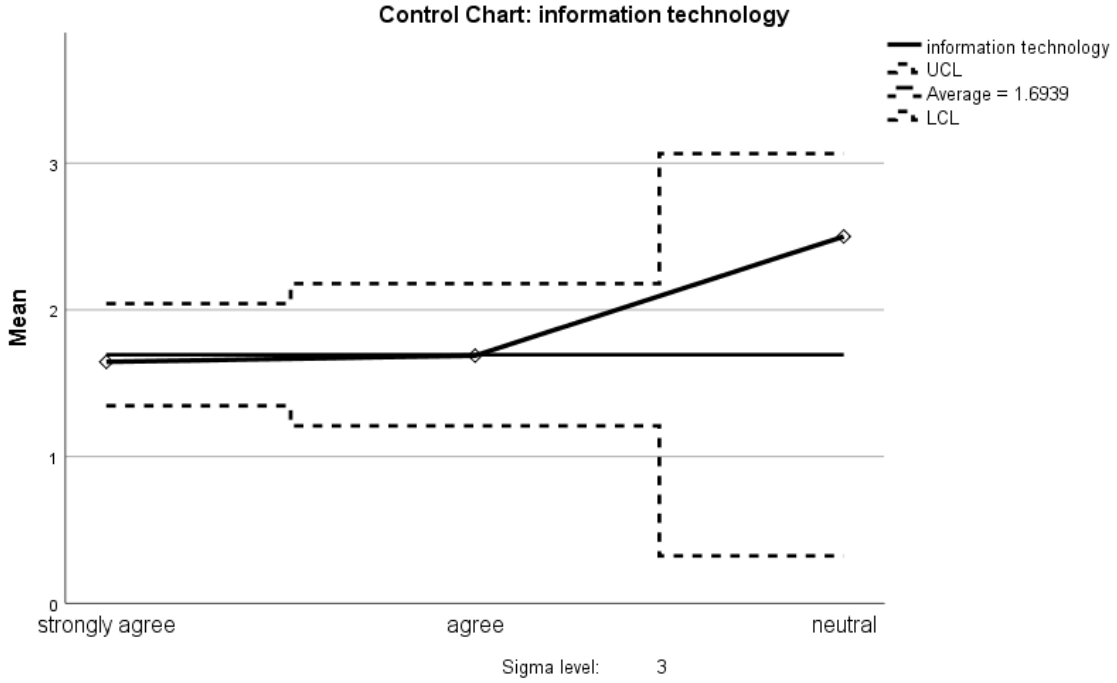
The above result describes that coefficient regression analysis result describes the beta values, standard error values also, that t statistic value, and significant rates of the model. Information technology is the main independent variable. According to the result, Its beta value is 0.230; its standard error value is 0.159, the beta value of the standardized coefficient is 0.217 the t-statistic rate is 1.452. according to the result, its significant rate is 0.154, showing that 15% is a significant level with information technology and sports performance. The psychological factor shows a beta value is 0.033, a standard error value is 0.186, a t statistic value is 0.178, and a significant value is 0.859, showing that there is an 85% significant level between them. Similarly, the perception shows a positive t-statistic value is 1.037. Its significant level is 0.306 respectively, showing that there are 30% significant rates between them. Motivation is a subpart of a psychological factor. Its beta value is -0.097 the standard error value is 0.199. the beta value as per the standardized coefficient value is -0.074, its t rate is -0.488, and the significant rate is 0.628, respectively, showing significant values between them. Attitude and belief are other subparts of psychological factors. Its beta value is 0.065, the standard error value is 0.184, the t-statistic value is 0.355, and the significant rate shows that 72% significant level with sports performance. Learning is another indicator and also a subpart of psychological factors. Its beta rate is -0.186 its significant rate is 0.257, showing that there is a 25% significant level between them. The overall research shows a positive and significant relationship between information technology and sports performance.

Model Summary

Model	R	R Square	Adjusted R Square	Std. An error of the Estimate
1	.346[a]	.119	-.003	.75830

a. Predictors: (Constant), learning, motivation, attitude and beliefs, information technology, perception, psychological factors

The above result describes that the model summary result presents R values, R square values, and also that adjusted R square values, and Standard error of the estimate values of model 1. The R-value is 0.346; the adjusted R-square rate is -0.003. According to the result, its R square value is 0.119, and the standard error of the estimated value is 0.75, respectively, showing a 75% error in the estimated values.



The above graph represents the control chart between information technology and sports performance. The vertical side shows mean values 0 to 3, and the horizontal side shows the strongly agree, agree, and neutral levels of variables. The average rate is 1.6939 for information technology and sports performance.

Conclusion

This research study determines the role of information technology related to psychological factors in sports performance. This research used primary data to determine the results information technology is the main independent variable, and sports performance is the main dependent variable. The psychological factors, including motivation, learning, beliefs, and benefits, also that perceptions are all considered mediator roles for measuring the results. The overall research study concluded that there are positive and significant links between information technology and sports performance. Psychological factors also positively influence sports performance. In conclusion, psychological aspects of life, including sports performance, are extremely important. For personal development, well-being, and athletic success, it is essential to comprehend the psychological and emotional factors that affect human behavior, thoughts, and emotions. Overall, better training methods, more informed decision-making, and increased athlete development have resulted from the integration of IT into sports performance. The potential for further innovation in this area is enormous as technology develops. The mindset, confidence, motivation, and general mental state of an athlete can all be greatly impacted by psychological elements in the context of athletic performance. High self-esteem and intrinsic motivation are associated with better performance and more tenacity in the face of adversity in athletes. Athletes that possess mental toughness are able to remain focused and resilient under duress, producing consistent and exceptional performance. Athletes frequently engage with mental performance coaches and sports psychologists to address these psychological variables and improve their mental game. Athletes can

realize their full potential and achieve success in their particular sports by comprehending and utilizing these variables. In conclusion, understanding the importance of psychological aspects in sports performance enables coaches and athletes to approach training and competition holistically, improving performance, toughness, and well-being in the quest for athletic excellence.

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