

## PLAYERS' PERCEPTION ABOUT MODERNIZATION OF SPORTS EQUIPMENT AT UNIVERSITY LEVEL IN PAKISTAN

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### Abstract

*The main purpose behind conducting this research is to find out the players' perception about modern sports equipment. With the help of literature review, the researchers came to know about the use of modern sports equipment and its importance. A quantitative research was conducted, and the research pattern adopted was survey research. The population of the study was players of different universities. Researcher collected data through questionnaire based on 20 close ended questions from 250 players as sample out of which 207 were usable in which 132 male and 75 female players were of age above 18 years via Simple random sampling technique. For the data analysis (SPSS) 22.0 Version was used. Individual Item Analysis (Chi-square Test) was used to view the responses against each item of questionnaire. Demographic factors of student players' regarding age and gender were measured and calculated through ANOVA and T-Test respectively and found no significant difference among male and female (Sig. 0.759) as well as in different age groups (Sig. 0.356). Overall results showed that there are positive results of use of modern equipment on players' performance. In concern with future recommendations, players should be allowed and facilitated as well as their familiarity with the use of modern sports equipment increased for better outcomes in their sports performance.*

**Keywords:** Sports, Modernization, Sports Equipment, Players

### 1. Introduction

Modernization formerly referred to the disparity and evolution between a 'traditional' agricultural culture and the kind of 'modern' society that is based on trade and industry (Charlton and Andras, 2005). Modern sport appears to be fundamentally different sports which is vastly more organized, highly structured, and regulated than in the past and at highest

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level become more specialized and modernized (Keys, 2013). Subjective assessment of games hardware ability has been utilized for a long time by makers and players yet generally few examinations have endeavored to build up a precise way to deal with the estimation of human observations in regards to modernization of games gear (Hocknell et al., 1996) as discernment can be characterized as "our cognizant elucidation of the outside world as made by the mind from an example of nerve driving forces conveyed to it from tactile receptors". Athletic affiliations and organizations contend that they ought to be allowed to guarantee reasonable rivalry and keep up the uprightness of their separate games by managing hardware (Lazaroff, 1999). On the off chance that hardware turns out to be "sophisticated to the point that one can't sufficiently recognize the relative ability levels of the members in their exhibitions, the very idea of the game is unavoidably modified, Although brandishing experts have an enthusiasm for safeguarding the uprightness of games, not every single mechanical progression have contrarily affected games. Besides, it is hard to observe how to fittingly build up and actualize rules overseeing the utilization of innovation (Floyd, 2002). In this research, researchers tried to get perception of university student players regarding use of modern sports equipment at university level. So, the main objective of the study was to take the perception of university sports students regarding use of modern sports equipment in sports.

## **2. Literature Review**

Modernization is a continuous and open-ended process (Hartley and Allison, 2002). Truly, the navigate of time over which it has happened must be evaluated in many years, regardless of the way that there are instances of revived modernization (Kumar, 1999). In either case, modernization isn't a for the last time achievement (Kumar, 1999). There is apparently, a dynamic standard consolidated with the very surface of current social requests that does not empower them to settle, or to achieve balance. Their headway is continually sporadic and uneven (Giddens, 2013). Whatever the degree of progress, there are continually "in turn around" regions and "periphery" social affairs (Giddens, 2013). This is a vigorous wellspring of strain and hardship in present day social requests. Such a condition isn't restricted to the internal improvement of individual states. It tends to be seen on an overall scale, as modernization

expands outward from its novel Western base to take in the whole world. The nearness of unevenly and inconsistent made nations displays a foremost part of feebleness into the world course of action of states (Holton, 2011).

## **2.1 Modernization and Sports**

The hierarchical framework of sports was thought to be a hindrance to accomplishing the essential arrangement objectives of first class achievement and the improvement of chances for youngsters to take an interest in brandish (Houlihan and Green, 2009). There is a requirement for a radical reevaluate of the way we finance and arrange, we offer a modernizing organization with the overseeing assortments of sports (DCMS, 2000). Today, be that as it may, modernization of the area is to a limited extent about the present high political striking nature of sports and physical activity programs and, in that capacity, as Freedden (1999) noted in a related verbal confrontation on the belief system of New Labor, the administration 'has embraced Etzioni's inclination for guided influence over intimidation (Green and Houlihan, 2006). Modernization of sports therefore fills the double the need of a terrific undertaking of national restoration (a fit, solid and dynamic populace and the facilitating of the 2012 Olympic Games), and as a purposeful way to deal with enhancing the execution of open administrations through regulatory justification and more prominent coordination and focusing of illuminated targets for conveyance of game projects at grassroots levels (Houlihan and Lindsey, 2012).

## **2.2 Effect of Modernization on Sports**

There are no less than two noteworthy and related reasons for modernization. One is the development in science that went along (in Europe) with the Enlightenment (Beck, Bonss, and Lau, 2003), the other is the development in accessible innovation. At the point when a nation is pre-present day, its kin for the most part don't have confidence in science. They hold conventional convictions that ordinarily hold that life is influenced by extraordinary powers. They don't trust that life can change in any real ways. In the Enlightenment, individuals came to challenge this thought (Norris and Inglehart, 2011). They came to trust that life is influenced by powers that are justifiable by means of science.

When they had this standpoint, they came to trust that life could be progressed. Science could change the way we live, making us (for instance) less perplexed of infection or other regular catastrophes. Science, obviously, causes individuals to create innovation, Innovation drives modernization along, Innovation enables ranchers to develop more nourishment, liberating individuals to go live in urban areas (Landes, 2003).

Innovation enables industrial facilities to emerge, therefore giving the new city occupants employments. Innovation likewise enhances life, giving us activities for stimulation, things that can enhance our wellbeing, and numerous other helpful advancements (Kranzberg, 1990). These things lead our general public to end up noticeably more modernized. Modernization has its great and terrible focuses. On the incredible side, modernization improves our lives from numerous points of view. It is completely progressively secure to live in a world in which we have masters who can fix defilements and in which women are not obligated to kick the basin in labor. It is increasingly useful to encounter an everyday reality with the end goal that we approach various material products to make our lives progressively pleasant and progressively fun. Modernization also helps people who are abused in customary society. Modernization empowers women to have progressively open entryways (Inglehart, 1997). It liberates abused minority social affairs. In these ways, modernization seems like an uncommonly positive thing. On the other hand, it is possible to battle that modernization has negative effects. One negative effect is on our condition. Modernization brings advancement that eats up essentialness and prompts such things as air sullyng and natural change. Another negative effect is (apparently) on our overall population (Barnett, 2003). Modernization isolates the social ties that bound people together in standard social requests. It makes it with the objective that people never again feel as related with one another. This can provoke such issues as bad behavior and the detachment of family social events. Thusly, modernization has clear causes and it has impacts that can make certain and negative (Palmore, 1999).

### **2.3 Types of Modern Technologies in Sports**

Technology is altering the expression of modern sports, sports psychology and coaching (Johns and Johns, 2000). Condition of-heart innovations are used to increase execution in games as multidirectional as cycling, speed-skating, swimming, golf, skiing, surfing, football/soccer ball, tennis racket and ball, running, offices and some more. Innovation in game today is found in innumerable structures with every advancement has conceivably hopeful and profitable results (Cashmore, 2000). Understanding the ramifications of game advancements include essential typology utilized in arranging, these are done in six sorts of game advances however not commonly restricted, sometimes same advances could fit into various classifications (Chelladurai and Kerwin, 2017). The classes included; self-advancements, rehabilitative advances, scene advances, development innovations, execute advances and database advances (OMOREGIE). While a portion of the advances are yet to establish a connection on game, comprehension of numerous kinds of game innovations help to acquire a superior perspective on which mechanical choices of competitors at last approach and effect on game achievements.

#### **2.3.1 Self -Technologies**

This speaks to the most clear and circulating for some; individuals type of innovation because of the capability of on a very basic level and frequently forever change a competitor's physical or mental being/make-up. Self-advancements include different sorts of athletic developments, of which are additionally dubious (Tuschling and Engemann, 2006). Others incorporate surgical techniques, prosthetic/bionic appendages; wear mental mediations and hereditary building are altogether named self-advancements. The nearness of certain self-advances in sports might be viewed as future, for example. While gear, for example, a prosthesis or a wheelchair are key for a few people with an inability to do their everyday living (Haisma, van Derwoude, Slam, Bergen and Bussmann, 2006; Pasquina, Bryant, Huang, Roberts, Nelson and Flood, 2006), propels in this innovation, for example, a vitality putting away prosthetic foot, make a lower appendage amputee's walk quicker and more proficient (Brodtkorb, Henriksson, Johanesen-munk and Thidell, 2008).

### **2.3.2 Landscape Technologies**

This type of innovation includes the donning situations which incorporate the manner in which observers watch sport occasions. Noticeable scene innovation is the development of present day multipurpose game structures, complete with Jumbo Tron screens retractable curves, taking off cameras, mondo tracks and phony grass. Bates (1996) fights that innovatively propelled contenders have a comfortable relationship with the mechanical shaking scenes. Olympic style sports contenders use new systems since they can screen their opponents on the Jumbo Trons sliding the last leg. The cutting edge arena is captivating in routinely attempt to copy nature of other standard style arenas. Sports and exercise science, as most areas of life, has been impacted uncommonly by mechanical advances (Wintler, 1996).

### **2.3.3 Implement Technologies**

It joins gear that contenders use or that they kick, toss or by and large prompt (Butryn, 2003). Various cases fuse football/soccer head defenders outfitted with notice contraptions and radios; shark suits that empower swimmers to move capably slice through the water and imaginative running shoes, golf clubs and tennis rackets. The intriguing discussion including these sorts of advancements is the utilization of fish-discovering PCs in game angling. This development uses devices (pedometer or alter board), media (video, sound, or both), and social correspondence (playing with another person) to incite individuals to grasp the lead without their truly knowing it (Romero et al., 2010).

### **2.3.4 Rehabilitative Technologies**

These are substances and techniques used to get moderate extreme wounds make up rehabilitative advancements (Heinemann, et al., 1991). They likewise incorporate drug utilized by sound competitors who simply need to counter the generally debilitating impacts of their preparation regimens. Normally, these advances are situated in games centers and preparing offices and are controlled by authorities in athletic preparing or sports medication. Rehabilitative advancements incorporate any sort of mitigating concoction, for example, acetylsalicylic corrosive. While not innovative in the typical sense, systems, for example, needle therapy and chiroprate alterations are additionally utilized

notwithstanding mechanical and automated treatment (OMOREGIE). Recovery innovations may likewise be seen as execution upgrading on the grounds that they enable competitors to prepare and contend at a level they generally proved unable (Howe, 2011).

### **2.3.5 Movement Technologies**

It alludes to those gadgets and methodology that are intended to survey the structure and proficiency of a competitor's body. The most widely recognized of such incorporate tape investigation, in spite of the fact that there are significantly more modern instruments that give itemized modernized data on a competitor's biomechanics (Butryn, 2003). On like the other type of innovation development advancements are frequently not unmistakable inside the aggressive fields.

### **2.3.6 Database Technologies**

It incorporates PC improvement that empowers contenders and tutors to know everything they need to consider their enemies and themselves (Sève, Poizat, Saury and Durand, 2006). Database undertakings have tremendously affected the way that various and most master guides and players do their business. Instructive investigation movements (a Nike GPS sports watch; a Polar heartbeat screen) engage solitary contenders to firmly screen their headway on essential physiological and execution parameters (OMOREGIE). Notwithstanding when not preparing for an Olympic gold medal, innovation in technology can play a constructive and supporting part, helping individuals to get spurred in holding fast to a solid exercise schedule, or in restoring after damage. Aggressive level of present day sports, particularly abnormal state of sports performance has been near the cutoff points of characteristic states of humankind, utilizing the normal favorable circumstances, unique preparing strategies, to constrain the development of individuals, has for some time been a fantasy (Stambulova, Stambulov and Johnson, (2012).

The substantial number of Computer innovation, natural building, new materials and energy utilization technology, data technology, and hypothesis of present day science and innovation have been generally utilized as a part of sports fields, making of Sports program and Sports preparation environment enormously changed and enhanced, training program updated, sites of sports training updated, extraordinarily

enhanced the level of focused sports, the extensive variety of capacities and impacts of sports consequently has been completely displayed (Roco and Bainbridge, 2002).

#### **2.4 Sports Equipment Modernization**

Game present reality is getting innovative by joining characteristic athletic ability with cutting edge examination and counterfeit wise to create the most ideal results on the playing field of games (Miller, Lawrence, McKay and Rowe, 2001). Game energize individuals as a triumph of human exertion, expressing that off camera are various things that go into that triumph and at the top is innovation. Mechanical headway has been utilized in wear for quite a while in various structures and expect particularly fundamental part especially for the world class sports. Different undertakings to describe advancement have yielded such an assortment of depictions, to the point that one may gave up to the likelihood that development is basically not quantifiable (Kremer and Moran, 2012). From one perspective, it is synonymous with science and practical thought, including every single gadget anytime held in hands. A couple of investigators express that advancement expect an extending part in helping capable contenders, fledgling sprinters and armchair fans to partake in the games (Shank and Lyberger, 2014). Development is depicted as any significant, connected, or procedural segment of current game and exercise science went for development (Miah, 2004). The versatile definition licenses everything from degrees of progress in running shoes and eyewear to different outlooks about the body as imaginative. In the simple age, the utilization of headways in wear was vivaciously centered around contender testing (diagnostics); improved games gear through better building and diagram, and utilized more at contentions. Along these lines, early instances of games advances were neck and neck complete, physiological testing equipment, the minute replay screen and first usage of electronic arranging contact pads for swimming (OMOREGIE). Without a doubt, advancement has a basic effect in present day wear, with it being a fundamental bit of a couple of games, (for instance, motorsport), and used as a piece of others to improve execution. The topical usages of advancement join, sports garbs; clothing and wearable's; workplaces; contention intervention and courses of action; media broadcasting and exchanges and execution

assessment (Wells, 2014). Subsequently, innovation and game have had something of rough relationship throughout the years (Bass and Eynon, 2009). Turner (2013) opined that to start with games and innovation did not generally appear the most matching. Thinking about the idea of game and hardware use to play and with late union of advancements numerous capacities are combined into one little gadgets. Innovation progressively is assuming a main job in the advancement of game and improves execution in all countenances. In this way, uses of innovation take into consideration increasingly powerful preparing, incitements, the executives and following of competitors, exactness of results, improved onlooker seeing, creating execution and avoiding wounds, among a lot more capacities (Busch, 1998). Innovation in games is a specialized methods by which competitors endeavor to improve their preparation and focused surroundings so as to upgrade their generally athletic presentation (Johns and Johns, 2000). It is thought of as a specialized methods or instrument used to seek after picked closes. Henceforth, the paper explores the effect of innovation on game execution.

### **3 Research Methodology**

Research methodology is the pattern to select population, select sample, collect data, analyze it and develop inference and in this research, all results obtained through analysis were in numeric form and research which have numeric results is said to be quantitative research. As research population is said to be a large community of homogenous characters and appropriate according to the objectives of the study, the population of this study were the students (male and female) of different government and nongovernment / private universities sited in Lahore. In the language of research, sample is said to be the small portion of the population which is said to be the true representation of whole population for the generalizability or practical implication of research and the sample for this study were male and female student players of eight nongovernmental / private and governmental / public sector with the isolation of each sector sited in Lahore. Data collection tool used in this research was close ended questionnaire containing 20 items. Likert type scale was used to rank each item of questionnaire which is comprised of 5 limit / checks as (Strongly disagree to Strongly agree). Total sample size was 207 male and female students of selected eight

universities. Statistical package for social sciences (SPSS) 20.0 was used to analyze data and statistical test used to analyze data were Chi-square test for individual item analysis and ANOVA for comparison of mean of three different age groups which were as 18-21 Years, 22-25 years and 26 years and above.

**Table 1 Results and Data Analysis**

		Sum of Squares	Df	Mean Square	F	Sig.
Mean	Between Groups	.739	1	.387	1.345	.356
	Within Groups	64.848	206	.328		
	Total	65.467	207			

Where  $\alpha=.05$ ; **Abbreviations:** Df = Degree of Freedom; F=Frequency; Sig. = Significance

Table 1 show that there was no statistically difference between the groups as *p*-value is .356 which is greater than 0.05 which means that there is no significant difference regarding different statement / perceptions related to this topic in different age groups.

**Table 2: Chi square value of player’s perception about statement "In my opinion, my performance enhanced with the use of modern sports equipment".**

Statement 1	Observed					Chi-Square	Sig.
	SD	D	UD	A	SA		
In my opinion, my performance enhanced with the use of modern sports equipment.	10	13	12	63	109	185.826	.000

Where  $\alpha=0.05$ ; **Abbreviations:** Strongly Disagree (SD), Disagree (D), Undecided (UD), Agree (A), Strongly Agree (SA)

The table 2 shows the response rate regarding statement “In my opinion, my performance enhanced with the use of modern sports equipment that 109 students response was Strongly Agree (SA), 63 was Agree (A), 12

was Undecided (UD), 13 was Disagree (DA) and 10 students were strongly Disagree (SD) about this statement "In my opinion, my performance enhanced with the use of modern sports equipment". Table also shows that Chi-square value is 185.826 whereas significance i.e. *p*-value is .00 which is smaller than .05 which express that there is notable difference among the sample population concerned to statement "In my opinion, my performance enhanced with the use of modern sports equipment". Overall result shows that performance of players enhanced with the use of modern sports equipment.

**Table 3: Chi square value of player’s perception about statement "In my opinion, modern sports equipment is not available to university players".**

Statement 2	Observed					Chi-Square	Sig.
	SD	D	UD	A	SA		
In my opinion, modern sports equipment is not available to university players.	13	20	27	75	72	85.440	.000

Where  $\alpha=0.05$

The table 3 shows the response rate that 72 students response was Strongly Agree (SA), 75 was Agree (A), 27 was Undecided (UD), 20 was Disagree (D) and 13 students were strongly Disagree (SD) about this statement " In my opinion, modern sports equipment is not available to university players". Table also shows that Chi-square value is 85.440 whereas significance i.e. *p*-value is .00 which is smaller than .05 which express that there is notable difference among the sample population concerned to statement "In my opinion, modern sports equipment is not available to university players". Overall result shows that the modern sports equipment is not available to university players.

**Table 4: Chi square value of player’s perception about statement "In my opinion, university provides modern sports equipment to players for preparation of competition".**

Statement 3	Observed	Chi-	Sig.
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	SD	D	UD	A	SA	Square	
In my opinion, university provides modern sports equipment to players for preparation of competition.	11	24	30	86	56	85.971	.000

Where  $\alpha=0.05$

The table 4 shows the response rate that 56 students response was Strongly Agree (SA), 86 was Agree (A), 30 was Undecided (UD), 24 was Disagree (D) and 11 students were strongly Disagree (SD) about this statement " In my opinion, university provides modern sports equipment to players for preparation of competition". Table also shows that Chi-square value is 85.971 whereas significance i.e. *p*-value is .00 which is smaller than .05 which express that there is notable difference among the sample population concerned to statement "In my opinion, university provides modern sports equipment to players for preparation of

competition". Overall result shows that university provides modern sports equipment to players for preparation of competition.

**Table 5: Chi square value of player’s perception about statement "In my opinion, due to modern sports equipment, enjoyment and interest in sports enhanced among university students/players".**

Statement 4	Observed					Chi-Square	Sig.
	SD	D	UD	A	SA		
In my opinion, due to modern sports equipment, enjoyment and interest in sports enhanced among university students/players.	7	8	24	92	76	153.604	.000

Where  $\alpha=0.05$

The table 5 shows the response rate that 76 students response was Strongly Agree (SA), 92 was Agree (A), 24 was Undecided (UD), 8 was Disagree (DA) and 7 students were strongly Disagree (SD) about this

statement "In my opinion, due to modern sports equipment, enjoyment and interest in sports enhanced among university students/players". Table also shows that Chi-square value is 153.604 whereas significance i.e. *p*-value is .00 which is smaller than .05 which express that there is notable difference among the sample population concerned to statement "In my opinion, due to modern sports equipment, enjoyment and interest in sports enhanced among university students/players". Overall result shows that due to modern sports equipment, enjoyment and interest in sports enhanced among university students/players.

**Table 6: Chi square value of player’s perception about statement "I feel progressive improvement in my sports performance due to use of modern sports equipment".**

Statement 5	Observed					Chi-Square	Sig.
	SD	D	UD	A	SA		
I feel progressive improvement in my sports performance due to use of modern sports equipment.	5	16	25	85	76	128.918	.000

Where  $\alpha=0.05$

The table 6 shows the response rate that 76 students response was Strongly Agree (SA), 85 was Agree (A), 25 was Undecided (UD), 16 was Disagree (D) and 5 students were strongly Disagree (SD) about this statement "I feel progressive improvement in my sports performance due to use of modern sports equipment". Table also shows that Chi-square value is 128.918 whereas significance i.e. *p*-value is .00 which is smaller than .05 which express that there is notable difference among the sample population concerned to statement "I feel progressive improvement in my sports performance due to use of modern sports equipment". Overall result shows that there is progressive improvement in sports performance due to use of modern sports equipment.

**Table 7: Chi square value of player's perception about statement "In my opinion, difficult/complex sports skills can easily learnt by the use of modern sports equipment".**

Statement 6	Observed					Chi-Square	Sig.
	SD	D	UD	A	SA		
In my opinion, difficult/complex sports skills can easily learnt by the use of modern sports equipment.	8	14	37	82	6	99.981	.000

Where  $\alpha=0.05$

The table 7 shows the response rate that 66 students response was Strongly Agree (SA), 82 was Agree (A), 37 was Undecided (UD), 14 was Disagree (D) and 8 students were strongly Disagree (SD) about this statement "In my opinion, difficult/complex sports skills can easily learnt by the use of modern sports equipment". Table also shows that Chi-square value is 99.981 whereas significance i.e. *p*-value is .00 which is smaller than .05 which express that there is notable difference among the sample population concerned to statement "In my opinion, difficult/complex sports skills can easily learnt by the use of modern sports equipment. Overall result shows that difficult/complex sports skills can be easily learnt by the use of modern sports equipment.

**Table 8: Chi square value of player's perception about statement "In my opinion, university coaches know very well about use of modern sports equipment".**

Statement 7	Observed					Chi-Square	Sig.
	SD	D	UD	A	SA		
In my opinion, university coaches know very well about use of modern sports equipment.	10	26	51	63	57	48.918	.000

Where  $\alpha=0.05$

The table 8 shows the response rate that 57 students response was Strongly Agree (SA), 63 was Agree (A), 51 was Undecided (UD), 26

was Disagree (D) and 10 students were strongly Disagree (SD) about this statement "In my opinion, university coaches know very well about use of modern sports equipment". Table also shows that Chi-square value is 48.918 whereas significance i.e. *p*-value is .00 which is smaller than .05 which express that there is notable difference among the sample population concerned to statement "In my opinion, university coaches know very well about use of modern sports equipment". Overall result shows that university coaches know very well about use of modern sports equipment.

**Table 9: Chi square value of player’s perception about statement "In my opinion, with the modernization of sports equipment, sports become more expensive for players".**

Statement 8	Observed					Chi-Square	Sig.
	SD	D	UD	A	SA		
In my opinion, with the modernization of sports equipment, sports become more expensive for players.	12	21	42	74	56	63.266	.000

Where  $\alpha=0.05$

The table 9 shows the response rate that 56 students response was Strongly Agree (SA), 74 was Agree (A), 42 was Undecided (UD), 21 was Disagree (D) and 12 students were strongly Disagree (SD) about this statement "In my opinion, with the modernization of sports equipment, sports become more expensive for players ". Table also shows that Chi-square value is 63.266 whereas significance i.e. *p*-value is .00 which is smaller than .05 which express that there is notable difference among the sample population concerned to statement "In my opinion, with the modernization of sports equipment, sports become more expensive for players ". Overall result shows that with the modernization of sports equipment, sports become more expensive for players.

**Table 10: Chi square value of player’s perception about statement "In my opinion, it is important that the modern sports equipment is used according to given SOP’s for effective and better outcome".**

Statement 9	Observed					Chi-Square	Sig.
	SD	D	UD	A	SA		
In my opinion, it is important that the modern sports equipment is used according to given SOP’s for effective and better outcome.	9	17	41	91	49	100.560	.000

Where  $\alpha=0.05$

The table 10 shows the response rate that 49 students response was Strongly Agree (SA), 91 was Agree (A), 41 was Undecided (UD), 17 was Disagree (D) and 9 students were strongly Disagree (SD) about this statement " In my opinion, it is important that the modern sports equipment is used according to given SOP’s for effective and better outcome ". Table also shows that Chi-square value is 100.560 whereas significance i.e. *p*-value is .00 which is smaller than .05 which express that there is notable difference among the sample population concerned to statement "In my opinion, it is important that the modern sports equipment is used according to given SOP’s for effective and better outcome ". Overall result shows that the modern sports equipment is used according to given SOP’s for effective and better outcome.

**Table 11: Chi square value of player’s perception about statement "In my opinion, special players get more help with modernization of equipment for better outcomes".**

Statement 10	Observed					Chi-Square	Sig.
	SD	D	UD	A	SA		
In my opinion, special players get more help with modernization of equipment for better	7	27	38	63	72	67.758	.000

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outcomes.

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Where  $\alpha=0.05$

The table 11 shows the response rate that 72 students response was Strongly Agree (SA), 63 was Agree (A), 38 was Undecided (UD), 27 was Disagree (D) and 7 students were strongly Disagree (SD) about this statement "In my opinion, special players get more help with modernization of equipment for better outcomes". Table also shows that Chi-square value is 67.758 whereas significance i.e.  $p$ -value is .00 which is smaller than .05 which express that there is notable difference among the sample population concerned to statement "In my opinion, special players get more help with modernization of equipment for better outcomes". Overall result shows that special players get more help with modernization of sports equipment for better outcomes.

**Table 12: Chi square value of player's perception about statement "In my opinion, use of modern sports equipment minimizes the injury rate of players".**

Statement 11	Observed					Chi-Square	Sig.
	SD	D	UD	A	SA		
In my opinion, use of modern sports equipment minimizes the injury rate of players.	13	20	36	75	63	69.787	.000

Where  $\alpha=0.05$

The table 12 shows the response rate that 63 students response was Strongly Agree (SA), 75 was Agree (A), 36 was Undecided (UD), 20 was Disagree (D) and 13 students were strongly Disagree (SD) about this statement "In my opinion, use of modern sports equipment minimizes the injury rate of players". Table also shows that Chi-square value is 69.787 whereas significance i.e.  $p$ -value is .00 which is smaller than .05 which express that there is notable difference among the sample population

concerned to statement "In my opinion, use of modern sports equipment minimizes the injury rate of players". Overall result shows that use of modern sports equipment minimizes the injury rate of players.

**Table 13: Chi square value of player’s perception about statement "In my opinion, university players get less benefit by the use of modern equipment in comparison to professional players".**

Statement 12	Observed					Chi-Square	Sig.
	SD	D	UD	A	SA		
In my opinion, university players get less benefit by the use of modern equipment in comparison to professional players.	13	27	42	68	60	52.251	.000

Where  $\alpha=0.05$

The table 13 shows the response rate that 60 students response was Strongly Agree (SA), 68 was Agree (A), 42 was Undecided (UD), 27 was Disagree (D) and 13 students were strongly Disagree (SD) about this statement "In my opinion, university players get less benefit by the use of modern equipment in comparison to professional players". Table also shows that Chi-square value is 52.251 whereas significance i.e. *p*-value is .00 which is smaller than .05 which express that there is notable difference among the sample population concerned to statement "In my opinion, university players get less benefit by the use of modern equipment in comparison to professional players". Overall result shows that university players get less benefit by the use of modern equipment in comparison to professional players.

**Table 14: Chi square value of player’s perception about statement "I feel myself psychologically stronger due to use of modern sports equipment".**

Statement 13	Observed					Chi-Square	Sig.
	SD	D	UD	A	SA		
I feel myself	3	15	26	100	63	152.396	.000

psychologically stronger due to use of modern sports equipment.

Where  $\alpha=0.05$

The table 14 shows the response rate that 63 students response was Strongly Agree (SA), 100 was Agree (A), 26 was Undecided (UD), 15 was Disagree (D) and 3 students were strongly Disagree (SD) about this statement "I feel myself psychologically stronger due to use of modern sports equipment". Table also shows that Chi-square value is 152.396 whereas significance i.e. *p*-value is .00 which is smaller than .05 which express that there is notable difference among the sample population concerned to statement "I feel myself psychologically stronger due to use of modern sports equipment". Overall result shows that students/players feel there selves psychologically stronger due to use of modern sports equipment.

**Table 15: Chi square value of player’s perception about statement "In my opinion, modernization of sports equipment reduced use of human resources in sports activities".**

Statement 14	Observed					Chi-Square	Sig.
	SD	D	UD	A	SA		
In my opinion, modernization of sports equipment reduced use of human resources in sports activities.	2	16	41	89	59	115.295	.000

Where  $\alpha=0.05$

The table 15 shows the response rate that 59 students response was Strongly Agree (SA), 89 was Agree (A), 41 was Undecided (UD), 16 was Disagree (D) and 2 students were strongly Disagree (SD) about this statement "In my opinion, modernization of sports equipment reduced use of human resources in sports activities". Table also shows that Chi-square value is 115.295 whereas significance i.e. *p*-value is .00 which is smaller than .05 which express that there is notable difference among the sample population concerned to statement "In my opinion, modernization of sports equipment reduced use of human resources in

sports activities". Overall result shows that modernization of sports equipment reduced use of human resources in sports activities.

**Table 16: Chi square value of player’s perception about statement "In my opinion, modern sports equipment help to attain health related and skill related fitness in short period of time"**

Statement 15	Observed					Chi-Square	Sig.
	SD	D	UD	A	SA		
In my opinion, modern sports equipment help to attain health related and skill related fitness in short period of time.	6	19	26	98	58	132.155	.000

Where  $\alpha=0.05$

The table 16 shows the response rate that 58 students response was Strongly Agree (SA), 98 was Agree (A), 26 was Undecided (UD), 19 was Disagree (D) and 6 students were strongly Disagree (SD) about this statement "In my opinion, modern sports equipment help to attain health related and skill related fitness in short period of time". Table also shows that Chi-square value is 132.155 whereas significance i.e. *p*-value is .00 which is smaller than .05 which express that there is notable difference among the sample population concerned to statement "In my opinion, modern sports equipment help to attain health related and skill related fitness in short period of time". Overall result shows that modern sports equipment help to attain health related and skill related fitness in short period of time.

**Table 17: Chi square value of player’s perception about statement "In my opinion, use of modern prosthetic devices help in rehabilitation of injury".**

Statement 16	Observed					Chi-Square	Sig.
	SD	D	UD	A	SA		
In my opinion, use of modern prosthetic devices help in rehabilitation of injury.	6	24	37	80	60	82.396	.000

Where  $\alpha=0.05$

The table 17 shows the response rate that 60 students response was Strongly Agree (SA), 80 was Agree (A), 37 was Undecided (UD), 24 was Disagree (D) and 6 students were strongly Disagree (SD) about this statement "In my opinion, use of modern prosthetic devices help in rehabilitation of injury". Table also shows that Chi-square value is 82.396 whereas significance i.e. *p*-value is .00 which is smaller than .05 which express that there is notable difference among the sample population concerned to statement "In my opinion, use of modern prosthetic devices help in rehabilitation of injury". Overall result shows that use of modern prosthetic devices help in rehabilitation of injury.

**Table 18: Chi square value of player’s perception about statement "In my opinion, results of competitions are more clear and without ambiguity due to use of modern sports equipment".**

Statement 17	Observed					Chi-Square	Sig.
	SD	D	UD	A	SA		
In my opinion, results of competitions are more clear and without ambiguity due to use of modern sports equipment.	3	17	40	81	66	102.541	.000

Where  $\alpha=0.05$

The table 18 shows the response rate that 66 students response was Strongly Agree (SA), 81 was Agree (A), 40 was Undecided (UD), 17 was Disagree (D) and 3 students were strongly Disagree (SD) about this statement "In my opinion, results of competitions are more clear and without ambiguity due to use of modern sports equipment". Table also shows that Chi-square value is 102.541 whereas significance i.e. *p*-value is .00 which is smaller than .05 which express that there is notable difference among the sample population concerned to statement "In my opinion, results of competitions are more clear and without ambiguity due to use of modern sports equipment". Overall result shows that results of competitions are more clear and without ambiguity due to use of modern sports equipment.

**Table 19: Chi square value of player’s perception about statement "In my opinion, technical faults of sports skills can be easily eradicated by the use of modern sports equipment".**

Statement 18	Observed					Chi-Square	Sig.
	SD	D	UD	A	SA		
In my opinion, technical faults of sports skills can be easily eradicated by the use of modern sports equipment.	8	14	47	73	65	83.411	.000

Where  $\alpha=0.05$

The table 19 shows the response rate that 65 students response was Strongly Agree (SA), 73 was Agree (A), 47 was Undecided (UD), 14 was Disagree (D) and 8 students were strongly Disagree (SD) about this statement "In my opinion, technical faults of sports skills can be easily eradicated by the use of modern sports equipment". Table also shows that Chi-square value is 83.411 whereas significance i.e. *p*-value is .00 which is smaller than .05 which express that there is notable difference among the sample population concerned to statement "In my opinion, technical faults of sports skills can be easily eradicated by the use of modern sports equipment". Overall result shows that technical faults of sports skills can be easily eradicated by the use of modern sports equipment.

**Table 20: Chi square value of player’s perception about statement "In my opinion, inappropriate use of modern sports equipment can cause injury".**

Statement 19	Observed					Chi-Square	Sig.
	SD	D	UD	A	SA		
In my opinion, inappropriate use of modern sports equipment can cause injury.	9	20	47	83	48	80.029	.000

Where  $\alpha=0.05$

The table 20 shows the response rate that 48 students response was

Strongly Agree (SA), 83 was Agree (A), 47 was Undecided (UD), 20 was Disagree (D) and 9 students were strongly Disagree (SD) about this statement "In my opinion, inappropriate use of modern sports equipment can cause injury". Table also shows that Chi-square value is 80.029 whereas significance i.e. *p*-value is .00 which is smaller than .05 which express that there is notable difference among the sample population concerned to statement "In my opinion, inappropriate use of modern sports equipment can cause injury". Overall result shows that inappropriate use of modern sports equipment can cause injury.

**Table 21: Chi square value of player’s perception about statement "In my opinion, use of modern equipment, put the players away from learning of basic skills".**

Statement 20	Observed					Chi-Square	Sig.
	SD	D	UD	A	SA		
In my opinion, use of modern equipment, put the players away from learning of basic skills.	11	30	22	86	58	89.256	.000

Where  $\alpha=0.05$

The table 21 shows the response rate that 58 students response was Strongly Agree (SA), 86 was Agree (A), 22 was Undecided (UD), 30 was Disagree (D) and 11 students were strongly Disagree (SD) about this statement "In my opinion, use of modern equipment, put the players away from learning of basic skills". Table also shows that Chi-square value is 89.256 whereas significance i.e. *p*-value is .00 which is smaller than .05 which express that there is notable difference among the sample population concerned to statement "In my opinion, use of modern equipment, put the players away from learning of basic skills". Overall result shows that use of modern equipment, put the players away from learning of basic skills.

## 5 Conclusion

After going through the whole research, the researcher have reached to the following conclusions that the data has empirically proved in support of that there is positive role of modern sports equipment to enhanced

sports performance of players. The fact is players who use modern sports equipment in their sports activities, have higher self-esteem (sig. .000), better sports skills (sig. .000), better performance (sig. .000), motivation (sig. .000), confidence (sig. .000) and they can easily achieve success and better performance level (sig. .000). All modern sports equipment helps to perform well without injuries. So, through this research, it is concluded that players perception about sports equipment is positive with reference to their good performance outcome in their sports activities. Modern sports equipment is good in development of sports field.

## 6 Recommendations

This research opened the thought process about use of modern sports equipment so following are few future recommendations regarding use of modern sports equipment;

- The coach must have a good working knowledge about use of modern sports equipment.
- The coach must train athletes as per available technologically modern facilities enabling them to perform well in their sports career.
- Further studies should be undertaken for taking authentic opinion of sports players regarding use of modern technologies of their choice to enhance their performance.

Applied research is an essential aspect of research in sport. Coaches and athletes are encouraged about the findings of such research as it gives them a scientific assessment of a real life situation regarding use of modern technologies in their sporting career.

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