

Available Online at http://www.recentscientific.com

CODEN: IJRSFP (USA)

International Journal of Recent Scientific Research Vol. 9, Issue, 7(B), pp. 27815-27819, July, 2018

International Journal of Recent Scientific Research

DOI: 10.24327/IJRSR

Research Article

RANJITSINHJI- CLASSY CRICKETER OR QUASI-COMPRADOR

Siddhartha R* and Rani P.L

Department of English Language & Literature Sri Sathya Sai Institute of Higher Learning, Anantapur, A. P

DOI: http://dx.doi.org/10.24327/ijrsr.2018.0907.2338

ARTICLE INFO

Article History:

Received 11th April, 2018 Received in revised form 9th May, 2018 Accepted 16th June, 2018 Published online 28th July, 2018

Key Words:

Postcolonialism, Cricket, Neocolonialism, Comprador, Ranjitsinhji

ABSTRACT

Kumar Ranjitsinhji, the legerdemain cricketer of the 18th century, is an interesting subject of study from a colonial perspective, because he defied and denied the colonial practices of his times, and the anti-colonial discourse of his times as well. Born in 1872 in Sarodar to a Jadeja family, Ranji had a 'Rajput' lineage that indicated that he belonged to the upper class. Ranji was already a promising batsman when he set foot on the shores of England, but with a steely resolve when at Cambridge, he grew from strength to strength through sheer hard work. He believed he could use cricket to socialize with the aristocrats and become one amongst them, given his 'princely' image.

Was India's earliest celebrity genius really a classy cricketer? Or was he a quasi-comprador who had his goals set on personal powers and returns?

Did he play the game to excel at it, thereby proving that race and color had nothing to do with skill? Or, did he use the sport to achieve his vested interests in the country of his birth and in other aristocratic circles?

These are some of the questions that this paper intends to address.

Copyright © Siddhartha R and Rani P.L, 2018, this is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution and reproduction in any medium, provided the original work is properly cited.

INTRODUCTION

"He was entirely original, and there is nothing in all the history and development of batsmanship with which we can compare him. His style was a remarkable instance of the way a man can express personal genius in a fame- nay, not only a personal genius but the genius of a whole race."

-Neville Cardus

Kinder words were never spoken of an Indian by the English, of a man who challenged and excelled the British at something that was of their own. Kumar Ranjitsinhji, the legerdemain cricketer of the eighteenth century, is an interesting subject of study from a colonial perspective, because he defied the colonial practices of his times, and denied the anti-colonial discourse of his times as well. Was he an opportunistic Indian looking for an escape from the confines of colonial subjugation? Was India's earliest celebrity genius really a classy cricketer? Or was he a quasi-comprador who had his goals set on personal powers and returns? Did he play the game to excel at it, thereby proving that race and color had nothing to do with skill? Or, did he use the sport to achieve his vested interests in the country of his birth as well asin other aristocratic circles?

Born in 1872 in Sarodar to a Jadeja family, Ranjitsinhji had a 'Rajput' lineage that indicated that he belonged to the upper class. On the contrary, it was the largesse of his uncle, the Jam of Nawanagar, Vibhaji, which accorded him that status. He was adopted by the Jam in 1878, after a family feud had left the Jam with no other option but to disown his son, Kalubha in 1877. The anointment was short-lived for Ranji, as the Jam's concubine gave birth to a son, Jaswantji in 1882. Upon realizing that he had his own blood as a progeny, the Jam then wrote to the British and got their approval to annul Ranji in 1884. History, though, would tell us that Nawanagar was ruled by Ranjitsinhji from1907-1933. Ranjitsinhji, by a play of fate and by his own making, allowed himself to be endeared by the English powers through the sport of cricket.

Ranjitsinhji, as mentioned above, was disowned by the Jam from the position of 'crown prince' when he was barely six years of age but the Jam agreed to accord him the education that he would not have otherwise received, probably due to a soft corner he still had for the latter. The lad was sent to the Rajkumar College, one of those English institutions which were built on the principles of muscular Christianity, and used cricket as a means to bring about education steeped in values. The college, till date, considers Ranjitsinhji as 'the greatest player the Rajkumar College has ever produced.' It is here that

^{*}Corresponding author: Siddhartha R

he developed his cricketing skills that laid the foundation for his career in the sport.

The headmaster Chester McNaghten recognized Ranjitsinhji's capabilities, and managed to extract an allowance from the Jam for him. He then took him to England in 1888, and then to Cambridge for his further studies and growth in the sport. Ranjitsinhji was already a promising batsman when he set foot on the shores of England, but with a steely resolve when at Cambridge, he grew from strength to strength through sheer hard work. Astill says that he practised every day until he collapsed due to sheer exhaustion. Ranjitsinhji began to believe that his route to riches would have to be through cricket, having lost his 'inheritance'.

With relative ease he made his way into the Trinity College team, but the real mark of University cricket would be donning the fabled Oxford 'Blue'. This seemed hard to achieve given his color and race; the captain at Oxford, L.S. Jackson, 'thought it inconceivable that Ranjitsinhji be inducted into the University side' even as some others indicated that 'the idea that he may play for Cambridge was considered sacrilegious'⁴. This led to Ranjitsinhji adopting a twofold strategy.

On one side, he would knock on the doors of selection through his on-field performances, which were record-breaking and brilliant. On the other hand, he opened another door that blocked his social mobility. He began to persevere with the idea that certain Indians were more acceptable to the elitist English than others. He began to construct a peculiar identity for himself. He believed he could use cricket to socialise with the aristocrats, and become one amongst them, given his 'princely' image. His cricketing skills were already accompanied by legends and tales of oriental mysticism, and Ranji often fed those rumors. Astill says he hinted that his Indian eyes were different from English ones, that they were quicker, keener. Sen reports another very interesting incident:

On one occasion, the sportswriter D.J. Knight (of the magazine Country life) said to Ranjitsinhji: 'You seem to be a wizard. How do you do it?' The response reflected a man who read what was being written about him. 'It is a gift of the people of my race.' Ranjitsinhji told Knight. 'The message from the eye to the brain, and from thence to the muscles, is flashed with a rapidity that has no equal among Englishmen'.⁶

What is interesting to note here is that Ranjitsinhji, who was perfectly aware of the image he carried as an Indian, did not hesitate to use the same to his advantage, especially given that his on-field prowess marked him out as a special talent. He thus made them not wonder how an Indian could play so well, but marvel at his skills *because* of his Oriental genes. The newspapers called him a magician, a juggler and even a wizard. The most prolific writers of the times began to eulogise him, and the essays penned on Ranjitsinhji by writers like Neville Cardus were even prescribed to schoolchildren⁷.

Ranjitsinhji eventually did wear the 'Blue' in 1893, after Jackson made a trip to India and returned convinced that Indians did have a fair amount of skill at the game, and 'might be able to control themselves on the field, after all'⁸.Ranjitsinhji eventually became the first Indian to play for an English University side, an English county side (Sussex). Moreover, given the awe in which people held him, and given

his own performances for the Oxford and Sussex sides, he found his way into the squad of England itself in 1896.

Though he made it to the squad, there was stiff resistance from the authorities over a colored player representing the British Empire. Sen remarks that Lord Harris considered the Indians in England as 'birds of passage', and being British and being a subject of the British were two different things altogether ⁹.Ranjitsinhji bore all the criticism and let his bat do the talking.

Public opinion and the support of some team members put to rest such criticism at length, and in 1896, Ranji, as he was christened by the English press, he became the first Indian to represent the English cricket team. If any doubt lingered as to whether the English would benefit by playing Ranji on their side, he put them to rest by scoring a hundred on debut. By the middle of the next decade, Ranji had become a massively popular superstar. Such was his standing in the game that he even captained the English team in their tours to the United States during his heyday as an English cricketer.

Along the way, he set one batting record after another. For example, he became the first batsman in the world to score a hundred before lunch in a Test match and to score two hundreds in two separate innings on the same day. Unsurprisingly, his presence on the field drew crowds and journalists in droves, through the rest of his career for England. When speaking of the crowds that milled around Ranii, a mention must be made of the latter's socialising skills. His homeat Trinity and Oxford was reportedly a den of parties. Often lavishly hosted through borrowed funds, these parties advertised Ranji as the 'perfect' Indian prince with an English touch. They were, in essence, Public Relations campaigns (long before the term was even coined!) that Ranji himself planned to boost his image, and revealed that, beneath his cosmopolitan exterior as a cricketer, there was a shrewd mind that understood how being a part ofelite social circles in England could work in his favour. As Sen writes:

He was an Indian prince who owned a car (not an elephant), who played cricket, and who socialized casually with the sons of the English elite. In other words, he was the Indian who was wealthy and unusual enough to be glamorous, but English enough to be welcomed into the hearts, minds, and playing fields of England.¹⁰

Reports of Ranji's reckless spending range from exuberance to exaggeration. It is said that 'he bought gold cigarette cases for his friends, signet rings for coaches and ivory carvings for casual visitors' 11. These acts of generosity are quite likely to be seen in hindsight as the investments made by an apparent 'outsider' to win over the 'locals'. The returns on the investments were pretty obvious. His social circle included F.S. Jackson (who would later include him in the University team) and C.B. Fry, players who stood by Ranji against the establishment, in his bid to represent England.

Ranji's habit of indulging in excesses would come out time and again, as he tried to roll out the red carpet to exhibit his loyalty (to the British) and royalty at the same time. Seeing how he fraternised with the English, many an eager creditor readily lent him the money he needed for his lavish parties. On the face of it, Ranji did look every bit the dashing aristocrat, 'unbeknown to his adoring public, mired in debt, pursued by aggressive

creditors and on the brink of serious embarrassment¹². The creditors themselves had a similar intent as Ranji, to find the favor of the British Raj. Majumdar writes of a childhood friend of Ranji by name Kachar who lent him 10,000 rupees, hoping that Ranji's relations with Lord Curzon would advance his own claims to be a Raja. Ranji, however, did notmediate on behalf of his friend, and was finally sued by him in 1904.¹³

When Jaswantji passed away in 1906, however, Ranji sensed an opportunity to lay to rest his days of debts and defamation, by staking a claim for the title of the Jam of Nawanagar. The competing claimants were the son of the disowned Kalubha and the disinherited Ranji himself. There is no denying in this connection that Ranji had a clear and distinct advantage of public popularity, both in India given his 'English' habits, and in England given his 'princely' status.

The British press was naturally swift to pass its views on the claim. An article that appeared in *The Times* on 13th November went to great lengths to support Ranji's claim to the Nawanagar throne.14 The reputation that Ranji had gained during his socialising days then played itself out: plenty of times populist clamour emerged favouring Ranji in the case, even as the other claimant laid out a very impressive and pressing argument, which many felt was justified, and stronger than that of Ranji. Astill notes, 'Nonetheless, Ranji received the respectful hearing that was due to a great England cricketer'. 15 The claim was reviewed by none less than the Viceroy and was debated even in the House of Commons. The review process gave Ranji the credibility that he needed to tilt the scales in his favor. His biographer Wild declares: "Of course, Ranji was significantly assisted in his claim by his immense popularity as a cricketer and also by his friendship with the British, perhaps particularly his personal acquaintance with Lord Lamington, the Governor of Bombay."16

This brings us to the question raised earlier. Did Ranji begin to play the sport as a means to escape from the confines of the colonial rule in India? Most of the events that mark Ranji's incredible rise as a world class cricketer happened in England, far away from the conflict zone of the land of his birth. However, even as he became a popular icon in England, the vacancy of the throne back home was too big a lure to resist, especially considering the chasm of debt into which he was fast falling. The pull of the throne in turn prompted Ranji to leverage the good offices he had acquired through cricket to book himself a safe passage back to his country.

Having left India a near pauper, Ranji returned only when he found a door to it as a ruler. According to Sen, Ranji was indeed an opportunistic character, and one who probably knew too well about the importance of 'good timing':

It had been a remarkably successful campaign, and this success was by no means inevitable. He had played two complicated games-cricket and racial negotiation-with consummate skill. He had turned as white as his skin would allow, and gained access to the inner citadels of power and status in England. Moreover, he had done it without letting the English lose sight of his other identity as a particular type of Indian: authentic, magical, swashbuckling, and destined to rule. At the appropriate moment, he had asserted both of these identities, and won. It is important to keep in mind that had Ranjitsinhji not played English games, he would never have become an

Indian prince. He would, in all likelihood, have languished as a minor casualty of the politics of a minor Indian state. ¹⁷

The events that followed Ranjitsinhji's ascent to the throne show his character in even more dubious light. Even in his coronation speech, Ranji made it very clear where his loyalties lay: in cricket and to the British Raj. He vowed 'to abide loyally by the traditions of this state, in its deep unswerving loyalty to the British throne'. 18

The first test of his loyalty to the Raj came when he was asked to captain the All-India team that toured England in 1911. Not only did Ranji refuse to represent the team, he didn't even contribute to the expenses incurred by it. 'Duleep and I are English cricketers,' he once responded. It is statements such as these which probably led Ramachandra Guha, one of the foremost historians of India, more so of Indian cricket, not to consider Ranji as an Indian cricketer, as far as Indian sporting history is concerned.

After his coronation, Ranji easily shifted roles from that of a cricketer to that of a comprador. His 'middleman' position so far as the ruling English were concerned became apparent in the way he began to conduct himself as the ruler of a state. Moreover, if his motives had been subtle earlier, they became steadily clear for all to see, from 1907 until the end of his rule in 1933.

Ranji recognized, soon after his coronation, that his kingdom was not one of the wealthier ones. Simon Wilde estimates that when Ranji acceded to the throne, Nawanagar spanned '3,800 square miles' and had '340,000 vassal subjects, a private army of 2,700...'. Ranji's ambition was to make a princely power out of his state, a status that states like Patiala and Baroda enjoyed.

Using the fame he had gained as a cricketer, Ranji convinced the secretary of state for India, Lord Montague, to grant his state that title. To improve his chances, moreover, he reverted to the familiar route of rolling out the red carpet for his guests. He hosted King George at Nawanagar to showcase his proximity with the ruling powers. Thus began his 'second innings' with flamboyant hospitality on borrowed funds.

Even as the Jam treated the guests at his palace with great displays of pomp and luxury, his dominion Nawanagar suffered successive famines in 1911 and 1915. To deal with the acute penury, he had to borrow more than 80,000 pounds in 1911 and another 14,000 pounds in 1915 from the colonial government. Sen points out that 'As such, like the extravagance of his years in England, the spectacle of his later life was being staged on credit-both financial and political.'²¹

In post-colonial theory, the notion of a 'comprador class' is used by Marxists to talk about the local 'middlemen' who owe their position to foreign monopolies, and who thereby maintain a vested interest in colonial occupation. In his book *Post-Colonial Studies: the Key Concepts*, Bill Ashcroft clarifies:

The word [comprador] continues to be used to describe a relatively privileged, wealthy and educated elite who maintain a more highly developed capacity to engage in the international communicative practices introduced by colonial domination, and who may therefore be less inclined to struggle for local cultural and political independence.²²

In fact, when Lord Irwin visited Nawanagar in 1927, Ranji reportedly spent 22,500 pounds to make the visit as glamorous as possible. The press did not take this 'show' lightly and the *Daily Herald* is said to have asked: "Has the Jam Saheb no thought for the Indian peasants? Is this fair play according to the canons of Cambridge and Sussex?"²³

The nationalist Indian press was also up in arms against him, more so against his wasteful spending to impress representatives of the Raj. Regional newspapers – *Rajasthan*, *PrajaBandhu* and *Gujrathi* to name some – were also very critical of Ranji's freewheeling attitude towards money.

The conniving methods used by Ranji were towards only one end - to stabilize his position as a ruler by ensuring maximum benefits accrued to his regime. On the one hand, Ranji did not want to lose the support of the British, and on the other, he resisted anything that was anti-British, including the freedom struggle and its anti-colonial discourse. Ranji was severely critical of the Indian National Congress's attempts to unite the nation against the Empire. This was because he was able to foresee the possibility that princely states would have to give way to a united India if the British were to grant independence to the country.

In fact, when the Congress sought to boycott British goods to create pressure on the Imperialists, Ranji had a different take on it. The anti-colonial campaign had a telling effect on ports like Bombay, and Ranji sensed an opportunity to improve the economic conditions of his own state, by promoting the port of Bedi. When he addressed a meeting arranged by the Manchester Chamber of Commerce he is known to have said: 'Over the last two or three years we, in my state, have trebled, if not quadrupled, the sale of Manchester goods because we felt that Bombay's stupidity was our opportunity'.²⁴ It was amply clear that he was not in the least interested in political freedom for the country, and many considered him an unconcerned Anglophile. Sen echoes that opinion when he writes that:

Fearful of the growing power of the Congress and the 'steam-roller progress of democracy in British India,' Ranjitsinhji had launched an energetic defence of hereditary privilege and autocratic rule, fortifying his rhetoric with references to Britain's own monarchical traditions, the colonial discourse of Oriental despotism, indigenous assumptions of Rajput entitlement, and even the Vedas...²⁵

The Indian freedom movement had to challenge not only the practices of the British but even those of their own, even if Ranji did not see himself as an Indian in any important respect. This is crucial to note because of the image that Ranji carried amongst the other princes of the country. It was his passage to the white world through cricket, which inspired many other *Rajas* to learn and promote the game of cricket in their kingdoms. They truly saw it as a means to impress their masters. It was, therefore, natural that what Ranji spoke and felt, did have a far-reaching impact on the rulers of other princely states.

While some kings like the Maharaja of Natore, or his rival the Maharaja of Cooch Bihar, used cricket, following the exemplary lead of Ranji, to ensure their own social mobility within the colonial framework, in other parts of India like Punjab, Rander, Kathiawar, Gwalior and Rajputana, the game had, even without royal patronage, become the most popular

sport by the beginning of the twentieth century. Yet, history tells us that Ranji did not work towards the development of Indian cricket, and even his promotion of cricket in Nawanagar was intended to attract the English monarch to his state.

As an administrator, Ranji was not as interested in the development of the sport in his kingdom, as he was in the development of it in England. In 1930, Ranji donated a hefty sum of one thousand pounds to the Sussex Cricket Club, an act of promotion that fetched him the chair of the club's President. Gradually making the transition from player to promoter, he followed up his thousand pounds bounty to Sussex, by giving fifty pounds to Maurice Tate when he retired from the game. In this context, it needs to be remembered that professional players of the time were largely left to the generous acts of aristocrats and patrons for their gratuity.

Commenting on Ranji's generosity towards English cricket, Sen notes: 'Here, we can see the resurfacing of an old pattern: Ranjitsinhji was paying his way through the portals of culture and race''.²⁶

It is precisely this tendency to make conscious efforts in a subtle way towards personal gains that Franz Fanon spoke of ascharacterising the *comprador* class. He believed that the effects of colonial domination would affect the psyche of the colonized, and from among the latter would emerge the elite, who would exchange roles with the white colonial dominating class, with little need for restructuring the society.

Fanon insisted that the black skin of the compradors would be 'masked' by their complicit attitude towards the values of the white colonial rulers. Ranji made his career out of cricket in a foreign land, but that brought him fame not so much as it brought him riches. Yet, he leveraged his glamorous aura as a cricketer to his advantage and won back a lost kingdom.

After becoming an Indian king, he believed there was no wrong in promoting the interests of his imperial masters so as to fill his own coffers. Upon filling his coffers, however, he behaved like the archetypal English master, and began to expend the money back in England. This behavior of Ranji almost mirrors what the East India Company itself had set out to do two centuries ago: travel to a foreign land, generate revenue and send it back to the mother country.

Had Ranji sought to improve the conditions in his own kingdom and relieve the land of its successive famines, he would have been seen as a savior. The case of Ranji, however, is a fine example of *Neo-colonialism*, where it is only the agent that changes, and not the practice itself.

Ashcroft says: '...it has been argued by some that the new elites brought to power independence, and often educated and trained by the colonialist powers, were unrepresentative of the people and acted as unwitting or even willing agents (compradors) for the former colonial rulers'.²⁷

Ranji did all of the above and more, despite the fact that India was not a politically free country just as yet. He played the role of a 'middleman' to perfection, as he strove to find that balance between being Indian and being English. He slipped seamlessly between both roles, and with pretty good success, and found acceptance in both quarters. He remains one of India's most venerated pre-independence cricketers, rising above the names of Nayudu, Vizzy, Pataudi Sr. and Baloo.

Yet as a ruler of the land, his policies were unapologetically oriented towards the Empire. He did little to influence the political movement of the country, when he could have done so much more, given his status in India and England. He played a slippery game, trying not to tilt the balance in any one direction. He should, therefore, be seen as a cricketer, as well as a comprador. To what extent he was truly successful in either role, and whether he was more of a cricketer or a comprador are issues that require further reflection.

At any rate, the last words on Ranjitsinhji, the cricketer-and-comprador, should be reserved for Satadru Sen, who writes:

...Ranjitsinhji had to become an Englishman to become an Indian man. In his pursuit of political power in India, he had to go through England, and through the innermost sanctums of late-Victorian English identity. He did this at great financial cost and with considerable, but not complete, success. At crucial moments, even at the peak of his status as an insider in England, he remained alien, if not marginal. This incomplete Englishness was, however, itself a political resource for Ranjitsinhji, because it allowed him to reinsert himself into the political milieu of colonial India.²⁸

References

- Neville Cardus. Ranjitsinhji. In: Sir Rupert Hart-Davis. Cardus on Cricket. Souvenir Press Limited: London; 1977: 138
- 2. James Astill. Mastering the Game. In: The Great Tamasha. Bloomsbury Publishing: London; 2013: 21
- 3. James Astill. Mastering the Game. In: The Great Tamasha. Bloomsbury Publishing: London; 2013: 21
- 4. Satadru Sen. Chameleon Games: Ranjitsinhji's Politics of Race and Gender. *Journal of Colonialism and Colonial History*. 2001. Vol:2 (3)
- 5. James Astill. Mastering the Game. In: The Great Tamasha. Bloomsbury Publishing: London; 2013: 21
- 6. Satadru Sen. Chameleon Games: Ranjitsinhji's Politics of Race and Gender. *Journal of Colonialism and Colonial History*. 2001. Vol:2 (3)
- 7. Ibid.
- 8. Ibid.
- 9. Ibid.
- 10. Ibid.

- 11 Ibid
- 12. James Astill. Chapter. In: Editor. The Great Tamasha. Bloomsbury Publishing: Place; 2013: 23
- Boria Majumdar. Royal Cricket: Self, State, Province and Nation. In: J.A. Mangan, Boria Majumdar (eds.) Cricket in Colonial India, 1780-1947. Routledge: New York, 2008;19
- 14. Ibid
- 15. James Astill. Chapter. In: Editor. The Great Tamasha. Bloomsbury Publishing: Place; 2013: 23
- Boria Majumdar. Royal Cricket: Self, State, Province and Nation. In: J.A. Mangan, Boria Majumdar (eds.) Cricket in Colonial India, 1780-1947. Routledge: New York. 2008;21
- 17. Satadru Sen. Chameleon Games: Ranjitsinhji's Politics of Race and Gender. *Journal of Colonialism and Colonial History*. 2001. Vol:2 (3)
- 18. James Astill. Chapter. In: Editor. The Great Tamasha. Bloomsbury Publishing: Place; 2013: 24
- 19. Ibid.
- 20. Ibid.
- 21. Satadru Sen. Chameleon Games: Ranjitsinhji's Politics of Race and Gender. *Journal of Colonialism and Colonial History*. 2001. Vol:2 (3)
- Bill Ashcroft, Gareth Griffiths, Helen Tiffin. Post-Colonial Studies, The Key Concepts. Second Edition. Routledge: New York, 2007; 47
- 23. Satadru Sen. Chameleon Games: Ranjitsinhji's Politics of Race and Gender. *Journal of Colonialism and Colonial History*. 2001. Vol:2 (3)
- Boria Majumdar. Royal Cricket: Self, State, Province and Nation. In: J.A. Mangan, Boria Majumdar (eds.) Cricket in Colonial India, 1780-1947. Routledge: New York, 2008;22
- 25. Satadru Sen. Chameleon Games: Ranjitsinhji's Politics of Race and Gender. *Journal of Colonialism and Colonial History*. 2001. Vol:2 (3)
- 26. Ibid.
- 27. Bill Ashcroft, Gareth Griffiths, Helen Tiffin. Post-Colonial Studies, The Key Concepts. Second Edition. Routledge: New York, 2007; 147
- 28. Satadru Sen. Chameleon Games: Ranjitsinhji's Politics of Race and Gender. *Journal of Colonialism and Colonial History*. 2001. Vol:2 (3)

How to cite this article:

Siddhartha R and Rani P.L.2018, Ranjitsinhji- Classy Cricketer or Quasi-Comprador. *Int J Recent Sci Res.* 9(7), pp. 27815-27819. DOI: http://dx.doi.org/10.24327/ijrsr.2018.0907.2338
