



Socio-Economic Profile of Vegetable Growers in the Amaravati Division of Maharashtra, India

**Karukumalli Sindhura^{a++*}, V. S. Tekale^{b#}
and Pranali N. Thakre^{ct†}**

^a Division of Agriculture Extension and Communication, SKUAST-Jammu, Chatha, India.

^b College of Agriculture, Mul, Chandrapur (Dist.), Dr. PDKV, Akola, India.

^c Department of Agriculture Extension, KVK, Nagon, Thane, India.

Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

Article Information

DOI: 10.9734/AJAEES/2022/v40i121809

Open Peer Review History:

This journal follows the Advanced Open Peer Review policy. Identity of the Reviewers, Editor(s) and additional Reviewers, peer review comments, different versions of the manuscript, comments of the editors, etc are available here: <https://www.sdiarticle5.com/review-history/95579>

Original Research Article

Received: 25/10/2022
Accepted: 29/12/2022
Published: 29/12/2022

ABSTRACT

India is an agriculture-based economy, known for possessing its own rich and diverse knowledge about cultivation practices. There has been a rise in the demand for fruits and vegetables by 2-3 percent per annum in recent years. In the background of this market trends, it requires no special emphasis to state that resorting to vegetable cultivation is widely considered as a highly profitable option amongst farming community in India. The present study attempts to scrutinize the socio-economic profile of vegetable growers in the Amaravati division of Maharashtra State. The study was conducted in 10 villages located at Akola and Amravati districts of Vidarbha region of Maharashtra state. An exploratory research design of social research was used for conducting the

⁺⁺Ph.D. Scholar;

[#]Associate Dean;

[†]Subject Matter Specialist;

*Corresponding author: E-mail: Karukumallisindhura95@gmail.com;

study. The data was collected from 20 respondents by personally interviewing them with the help of structured interview schedule. Information obtained from them was carefully examined, classified, quantified and tabulated. Frequencies, mean, standard deviation were employed for interpreting the results. The findings revealed that, the majority (48.33%) of the vegetable growers were middle aged. High proportion of the respondents (37.50%) were educated up to higher secondary school category (10th to 12th standard). Nearly half (47.50%) of the respondents were having medium family size category (5-6 farmers). Most of the respondents (30.00%) had annual income between Rs. 2,00,001 to 3,00,000/-. High proportion of the vegetable growers (45.83%) possessed semi-medium category of land holding (2.01 to 4.00 ha). Nearly half (46.67%) of the vegetable growers had 0.81 to 1.60 ha area under vegetables. Nearly three fourth (65.00%) of the respondents had above 20 years of experience in vegetable cultivation. Most of the respondents (55.83%) belonged to medium category of social participation. Nearly three fourth (77.50%) of the respondents always share information with needy people. Majority (56.67%) of the respondents were having medium source of information. More than half (64.17%) of the respondents were having medium level of Innovativeness. Nearly three fourth (72.50%) of the respondents had medium category of risk orientation.

Keywords: Socio-economic profile; vegetables; vegetable growers.

1. INTRODUCTION

In global endeavour for food, nutritional and health security, vegetables crops have attained special significance. India is principally a vegetarian country and second largest producer of vegetables, next to China. According to the second advance estimate of horticulture production released by the Ministry of Agriculture and Farmers Welfare, GOI [1] the production of vegetables is estimated to be 196.27 million tonnes in 2020-21, up by 4.42 percent as compared to 188.28 million tonnes in 2019-20. During the fiscal year 2022, Uttar Pradesh produced the largest share of vegetables in India, accounting for 14.8 percent, while Maharashtra ranks fifth with a share of 8.4 percent [2].

Vegetables are one of the cheapest sources of natural protective food, contributing carbohydrates, vitamins and mineral in human diet. Vegetable consumption provides taste, increase appetite, palatability and provides necessary fibre, essential for proper functioning of digestive system [3-5].

The vegetable farming even on the small patches of land is remunerative compared to cereal cropping and average yield of vegetable crops is approximately five to ten times more than of cereals. This yield can further be increased by 10-12 times if farmers opt for an off-season farming system, based upon the type of greenhouse, type of crop, environmental conditions etc. All these factors make cultivation of vegetables a flourishing business in India as well as in the world [6].

Cultivation of vegetable not only provide nutritional security; it also provides a substantial employment to rural people as well as open the door for export. Thus, plays an active role in increasing the livelihood condition of poor rural folks. Therefore, this study is carried out to explore the socio-economic characteristics of vegetable's farmers in Amravati Division of Maharashtra, to provide valuable information to the academicians, planners, policy makers and extension workers.

2. METHODOLOGY

An exploratory design of social research was used to assess the collected data. Maharashtra state comprises of six revenue divisions out of which Nagpur and Amravati together popularly known as Vidarbha region. Vidarbha region comprises of eleven districts out of which Amravati division i.e. Akola and Amravati districts from Vidarbha region were selected for the present study. Two talukas namely, Patur taluka of Akola district and Achalpur taluka of Amravati district were purposively selected for the study as these talukas were having high area under vegetable cultivation than other talukas of these selected districts. In Patur and Achalpur talukas, 5 villages from each taluka were selected purposively based on high area under vegetable cultivation. Comprising total sample of 10 villages for the present study. A list of vegetable growers having minimum area of 0.20 ha under vegetable cultivation was obtained from Taluka Agriculture Office of selected talukas. Thus, from selected two talukas and selected 10 villages, 120 respondents were selected i.e. 12 respondents from each village were selected

randomly and they were considered as sample respondents in the present study. The data was collected by personal interview, so as to get valid and complete responses. Keeping the objective of the study in view an interview schedule was developed, pre-tested and was personally administered.

The collected data were carefully examined for completeness and correctness before tabulation. Both qualitative and quantitative classes were formed. In case of some variables, the classes were formed arbitrarily while in case of some variables accepted standard classification was adopted and for remaining others, the mean and standard deviation were considered. The data was then tabulated and the frequencies and percentages of the vegetable growers in each category were worked out.

3. RESULTS AND DISCUSSION

The Socioeconomic status (SES) firstly represents social and economic background of an individual, secondly addresses relative position in a particular social structure which normally includes acquired versus biological characteristics of an individual [7].

3.1 Age

The data presented in the Table.1 shows that, nearly half of the respondents (48.33%) were under middle age category, followed by young age category (23.33%) and old age category (28.34%). The middle age farmers are comparatively having free hand in financial affairs and they can take up an independent decision to implement their ideas. Farmers of middle age are usually enthusiastic and have moderate experience in farming and more working efficiency than older and younger growers. They also possess more physical vigour and have more family responsibilities than younger ones. The results were in line with the finding of Khan et al. [8] who reported that majority of the respondents were middle age category.

3.2 Education

The appraisal of Table 1 shows that nearly maximum number of the respondents had higher secondary school education (40.00%), while (19.17%) of the respondents had secondary school education, followed by (15.83%) of the respondents were educated up to middle school.

The other respondents were educated up to graduation (11.67%), followed by (07.50%) and (04.17%) were educated up to primary school and post-graduation, respectively, remaining (01.66%) were found as illiterate. Thus, it is concluded that majority, of the respondents were educated up to higher secondary school. The results were in line with the finding of Adebayo and Oladele [9].

3.3 Family Size

It was observed that, nearly half (47.50%) of the vegetable growers were having medium family size (5-6 members), followed by (29.16%) of the vegetable growers were having big/large family size (above 6 members) and only (23.24%) of the vegetable growers were having small family size (up to 4 members). Thus, it is concluded that majority of the vegetable growers were having medium family size (Table 1). These findings were found to be similar with Kiranmayi [10] and Rawal Jyoti [11].

3.4 Annual Income

It refers to the total income in year of all the family members of the respondents from all the sources. Annual income of the family helps to project the overall economic position and is indication of economic stability. From Table.1 It was revealed that, majority of the respondents (30.00%) had annual income (Rs.2,00,001/- to Rs.3,00,000/-), while (27.50%) had annual income (Rs. 3,00,001/- to Rs. 4,00,000/-), followed by (15.83%) of the respondent had annual income (Rs. 1,00,001/- to Rs.2,00,000/-), (15.00%) had annual income (above 4,00,00/-), and only (11.83%) had annual income (above Rs. 1,00,000/-). Thus, it is concluded that majority (30.00%) of the respondents belongs to annual income category (Rs.2,00,001 to 3,00,000). This is due to the semi medium land holding possessed by the vegetable growers and practicing of subsidiary occupations by the respondents. These findings were in line with the findings of Shashidhara [12] and Yewatkar [13].

3.5 Land Holding

The hectare of land possessed by an individual might influence on adoption of innovation and also determine the decision-making ability and risk-taking ability. From the Table 1, it was observed that, (45.83%) of the vegetable growers possessed semi-medium category of land holding (2.01 to 4.00 ha), while (31.67%)

were belonged to small land holding (1.01 to 2.00 ha), followed by (10.83%) of the vegetable growers belonged to the medium category (4.01 to 10.00 ha), (07.50%) had marginal land holding (up to 1.00 ha) and only (04.17%) of the vegetable growers falls under big category with land holding (above 10.00 ha.) Thus, it was concluded that, majority of the vegetable growers were found in semi-medium and small land holding category. The reason for possession of

higher per cent of semi medium land holding could be due to fragmentation of land because of separation of families. Small land holding needs subsidiary occupation for their better living, since uncertainty and risk are there in farming. In order to sustain the losses occurred to the small and medium farmers due to vagaries of nature. These findings were in agreement with Mate [14] and Pawar [15].

Table 1. Socio economic profile of vegetable growers

Variable	Category	Frequency	Percentage
Age	Young (Up to 35 yrs.)	28	23.33
	Middle (36 yrs. to 50yrs.)	58	48.33
	Old (above 50 yrs.)	34	34
Education	Illiterate	02	01.66
	Primary school	09	07.50
	Middle school	19	15.83
	Secondary school	23	19.17
	Higher secondary school/Junior college	48	40.00
	Under graduate degree	14	11.67
	Post graduate degree	05	04.17
Family size (members)	Small (up to 4)	28	23.24
	Medium (5-6)	57	47.50
	Big/ Large (above 6)	35	29.16
Annual income	Marginal (Up to 1.00)	09	07.50
	Small (1.01 to 2.00)	38	31.67
	Semi-medium (2.01 to 4.00)	55	45.83
	Medium (4.01 to 10.00)	13	10.83
	Big (above 10.00)	05	04.17
Area under vegetables (ha)	Up to 0.80	43	35.83
	0.81 to 1.60	56	46.67
	Above 1.60	21	17.50
Experience in vegetable cultivation (Years)	Up to 10 Years	05	04.17
	11 to 20 Years	37	30.83
	Above 20 Years	78	65.00
Social participation	Low	18	15.00
	Medium	67	55.83
	High	35	29.17
		Mean = 4.36	SD = 2.57
Source of information	Low	28	23.33
	Medium	68	56.67
	High	24	20.00
		Mean = 21.17	SD = 5.52
Innovativeness	Low	12	10.00
	Medium	77	64.17
	High	31	25.83
		Mean = 14.15	SD = 1.80
Risk orientation	Low (Up to 9.14)	15	12.50
	Medium (9.15 to 15.38)	87	72.50
	High (Above 15.38)	18	15.00
		Mean = 12.26	SD = 3.12

3.6 Area under Vegetables

From the Table 1, it was observed that, nearly half (46.67%) of the vegetable growers had (0.81 to 1.60 ha) area under vegetables. Followed by (35.83%) of the vegetable growers had (up to 0.80ha) area under vegetables. Whereas, (17.50%) of the vegetable growers had (above 1.60 ha) of area under vegetables. Thus, it may say that higher per cent of the vegetable growers (46.67%) had put area under vegetables (0.81 to 1.60 ha). Similar types of findings were observed by Andhari and Sonawane [16].

3.7 Experience in Vegetable Cultivation

Experience in vegetable cultivation was the number of years an individual vegetable grower has been practicing the vegetable cultivation. From Table 1, it was observed that, nearly two-third (65.00%) of the respondents were having above 20 years of experience in vegetable cultivation, followed by (30.83%) of the respondents were having 10 to 20 years of experience and only a meagre (04.17%) part of respondents were having up to 10 years of experience in vegetable. Thus, it was concluded that majority of the vegetable growers were having more than 20 years of experience. These findings were in line with the findings of Tekale [17].

3.8 Social Participation

From Table 1, it was revealed that, more than half (55.83%) of the respondents were belonged to the medium category of social participation, followed by (29.17%) of the respondents were belonged to the high category of social participation, whereas, only (15.00%) of the respondents belonged to the low category of social participation. Thus, it was concluded that, majority of the respondents belonged to the medium category of social participation. Because; the knowledge level of the respondents will increase with the day-to-day happening in the social system. The findings were in line with the studies of Anitha (2004) and Bansod [18].

3.9 Source of Information

It was observed from Table 1 that, the majority of the respondents (56.67%) were using medium sources of information, followed by (23.33%) of the respondents used the low level sources of information, remaining (20.00%) respondents were using a high number of sources of

information. Therefore, it was concluded that most of the vegetable growers were using medium information sources for getting information about vegetable cultivation. These findings were supported by Khare [19] and Chate Seema [20].

3.10 Innovativeness

It indicates the willingness of an individual to know about new things, ideas and new practices related to vegetable cultivation and to what extent he is going to apply this thing in his vegetable cultivation. From Table 1, it was concluded that; the majority (64.17%) of the respondents belongs to the medium innovativeness category, however, each of the (25.83%) and (10.00%) of the respondents belonged to the high and low innovativeness categories, respectively. The medium innovativeness of the respondents might be due to their middle age which must have restricted them to try out new things. The majority of the vegetable growers belonged to the semi-medium land-holding category, and their level of education was only up to higher secondary school. All these factors might have contributed to their medium level of innovativeness. The results were in accordance with the findings Wankhade et al. [21] and Wadekar [22].

3.11 Risk Orientation

In general, farmers are always facing risk and uncertainty in adopting new ideas. Risk orientation decides an individual's innovativeness and influences positive on entrepreneurial behavior. The successful vegetable growers are one who readily accepts to face risk and play with nature. It was revealed from the Table 1 that, the majority (72.50%) of the respondents had a medium category of risk orientation. Whereas, (15.00%) of the respondents had high category of risk orientation and only (12.50%) had a low category of risk orientation. The risk-bearing capacity of individuals depends upon their personal, psychological and socio-economic characteristics. The results were in accordance with Nagesh [23], Bennur [24], Jha [25], Thakare (2013) and Potsangbam Rajina [26].

3.12 Information Sharing Behaviour

It could be inferred from the Fig. 1 that, majority of the vegetable growers (77.50%) Always share information with needy person, followed by friends and relatives (55.00%), neighbours

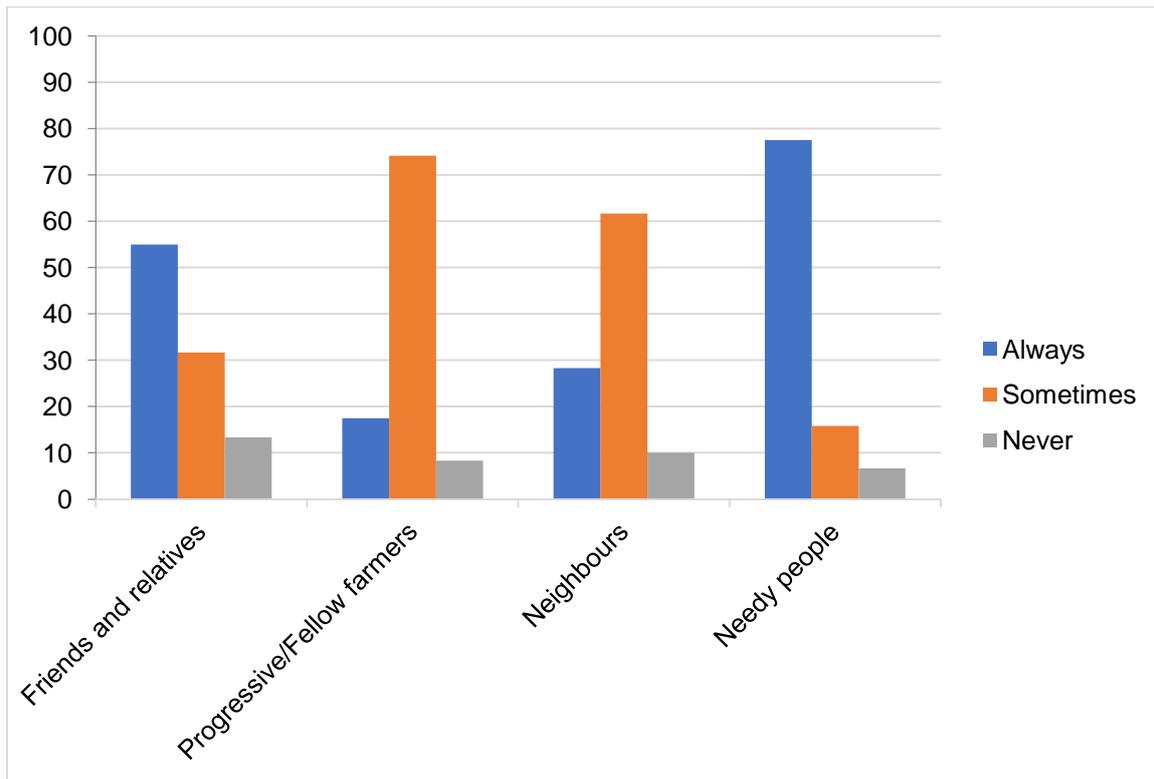


Fig. 1. Distribution of the respondents according to their information-sharing behaviour

(28.33%) and with progressive/ fellow farmers (17.50%). Further (74.16%) of vegetable growers share information sometimes with progressive/ fellow farmers, whereas, (61.67%) with neighbours, followed by (31.66%) with friends and relatives and (15.83%) with needy people. Later (13.34%) of vegetable growers never share information with friends and relatives, followed by (10.00%) and (08.34%) with neighbours and progressive/ fellow farmers, respectively and only (06.67%) with needy people. The pattern of information sharing behaviour of vegetable growers revealed that, they basically rely on friends and relatives for information. Information was circulated through the informal network in the villages. These findings were found to be similar with the findings of Sidhu et al. [27] and Rawal Jyoti [11].

4. CONCLUSION

The study gave overview about the socio-economic characteristics of the vegetable growers in Amaravati Division. It was found that the vegetable growers belonging to the middle age group having formal education with good farming experience are earning good annual income by tapping the new avenues. Vegetable growers with formal education are quick in

understanding of information, and needs shorter innovation-decision period. Higher education showed better comprehension of advisories as well as faster sharing of the received information to fellow farmers than less qualified farmers [28]. Government should focus more on providing timely information about vegetable cultivation, storage, marketing, post-harvest handling, export facilities and Phyto-sanitary measures to improve the marketing efficiency. Vegetable growers should form their own co-operative groups for export purpose, to reduce price fluctuation and exploitation by middlemen. The findings can be utilized by the policy makers to develop a better understanding for the reason of low awareness among vegetable growers related to extension services and should come up with the suitable policies which will be beneficial to the vegetable growers.

CONSENT

As per international standard or university standard, respondents' written consent has been collected and preserved by the author(s).

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. MoAFW. Second advance estimate. Ministry of Agriculture and Farmers Welfare, Government of India; 2021. Available:<https://static.pib.gov.in/> Access on 3rd January, 2023.
2. Statista. Leading vegetable producing states in India FY2022; 2022. Available:<https://www.statista.com> Access on 10th January, 2023
3. Anita BM. Production and marketing behaviour of onion growers. M.Sc. (Agri.) Thesis (unpub.) Dr. PDKV, Akola; 2017.
4. Maghade AY. Technological gap in onion cultivation from Rahata Tahsil of Ahmednagar district. M.Sc. (Agri.) Thesis (Unpub.) MPKV, Rahuri; 2007.
5. Ovhar ND. Technological gap in turmeric production technology. M.Sc. (Agri.) Thesis (Unpub.) Dr. PDKV, Akola; 2012.
6. Joshi V. Off-season vegetable cultivation: A profitable approach. Lifelines India, Oneworld; 2013. Available:<http://ekduniya.net/sites/lifelines/off-season-vegetable-cultivation-a-profitable-approach/#.VA4T0cKSzZg> Access on 9th January, 2023
7. Villalba CMH. Socioeconomic Status (SES). In: Michalos AC. (eds) Encyclopedia of Quality of Life and Well-Being Researcher. Springer, Dordrecht; 2014. Available:https://doi.org/10.1007/978-94-007-0753-5_2805
8. Mohammad Imran Khan, Sharad Bisen, Gaurav Mahajan. Socio-economic profile of vegetable growers under horticulture based module of farmer FIRST Project in Balaghat (M.P.), India. Int. J. Curr. Microbiol. App. Sci. 2020;9(03):3252-3257. DOI: <https://doi.org/10.20546/ijcmas.2020.903.372>
9. Adebayo SA, Oladele OI. Socioeconomic status of organic vegetable farmers in South West Nigeria. Journal of Food, Agriculture & Environment. 2013;11(2):397-402.
10. Kiranmayi K. Adoption behaviour of chilli farmer in Guntur district of Andra Pradesh. M.S. (Ag.) Thesis (Unpub.) Acharya N.G. Ranga Agricultural University, Hyderabad, India; 2013.
11. Rawal, Jyoti. A study on extension needs of vegetable growers in Kumaon Region of Uttarakhand. M.Sc. (Agri.) Thesis (unpub.) GBPUAT, Pant Nagar; 2017.
12. Shashidhara KK. A study on management of eco-friendly practices by vegetable growers of North Karnataka. Ph.D. Thesis (Unpub.), UAS, Dharwad, Karnataka, India; 2006.
13. Yetwakar Harshal. Entrepreneurial behaviour of garlic growers. M.Sc. (Agri.) Thesis (Unpub), Dr. PDKV, Akola; 2018.
14. Mate PS. A study of knowledge and adoption recommended potato cultivation practices by the farmers in Pune district. M.Sc. (Agri.) Thesis (Unpub.), MPKV, Rahuri (M.S) India; 2006.
15. Pawar AS. Production and marketing behaviour of organic vegetable growers in Western Vidarbha. M.Sc. Thesis (Unpub) Dr. PDKV, Akola; 2014.
16. Andhari V, Sonawane HP. Tomato growers marketing strategies from Western Maharashtra. Asian Res. J. of Ext. Edu. 2010;30:34-38.
17. Tekale VS. Entrepreneurial behaviour of vegetable growers. Research Review Committee Report, Department of Extension Education, Dr. PDKV, Akola; 2015.
18. Bansod SK. Knowledge and adoption of integrated pest management practices by brinjal growers. M.Sc.(Agri) Thesis (Unpub), Dr. PDKV Akola; 2016.
19. Khare AL. Adoption of improved cultivation practices of gram by the farmers. M. Sc. (Agri.) Thesis (Unpub), Dr. PDKV, Akola; 2013.
20. Chate, Seema S. Socio-economic transformation of shadenet house farmers in Buldana district. M.Sc. (Agri.) Thesis (Unpub.) Dr. PDKV, Akola; 2018.
21. Wankhade RP, Sagane MA, Mankar DM. Entrepreneurial behaviour of vegetable growers. Agricultural Science Digest. 2013;33(2):85-91.
22. Wadekar AR. Entrepreneurial attributes of nursery growers. M.Sc. (Agril.) Thesis (Unpub.), Dr. PDKV, Akola(MS); 2016.
23. Nagesh. Study on entrepreneurial behaviour of pomegranate growers in Bagalkot district of Karnataka. M.Sc. (Agri) Thesis (Unpub), UAS, Dharwad; 2006.
24. Bennur AK. A study on entrepreneurial qualities and adoption behaviour of banana growers. M.Sc. (Agri) Thesis. (Unpub), UAS, Dharwad; 2011.

25. Jha KK. Entrepreneurial behaviour of pineapple growers. Indian Res. J. of Extn Education. 2012;1:142-145.
26. Potsangbam Regina. Entrepreneurial behaviour of brinjal growers in Akola district. M.Sc. (Agri.) Thesis (unpub.) Dr. PDKV, Akola; 2017.
27. Sidhu K, Kumar V, Dhillon TS, An analysis of vegetable cultivation in Punjab. Journal of Life Sciences. 2010;2(1):37-42.
28. Gowda MJC, Dixit S. Influence of farmers educational level on comprehending, acting-upon and sharing of agro advisories. J. Agr. Rural Develop. Trop. Subtrop. 2015;116(2):167-172.

© 2022 Sindhura et al.; This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Peer-review history:
The peer review history for this paper can be accessed here:
<https://www.sdiarticle5.com/review-history/95579>