



An Analysis of Managerial Challenges of Affiliated Credit Unions to Cameroon Cooperative Credit Union League (CamCCUL)

Neba Noela Buwah¹ and Chofor Joyvice^{2*}

¹*Department of Business Management, Faculty of Management Sciences, University of Calabar, Calabar, Nigeria.*

²*Department of Management Sciences, Faculty of Social and Management Sciences, University of Buea, Cameroon.*

Authors' contributions

This work was carried out in collaboration between the two authors. Author NNB designed the study, wrote the protocol and the first draft of the manuscript. Author CJ performed the statistical analysis, managed the analyses of the study and literature searches. Both authors read and approved the final manuscript.

Article Information

DOI: 10.9734/JSRR/2019/v22i330089

Editor(s):

(1) Prof. Mohamed Abd El-moneim Ramadan, Pretreatment & Finishing of Cellulosic Fibres Department, Textile Research Division –NRC- Egypt.

Reviewers:

- (1) Borislav Kolaric, Telecom Serbia, Belgrade, Serbia.
- (2) Romer C. Castillo, Batangas State University, Philippines.
- (3) Ahmad Ghias Nadim, SZABIST, Islamabad, Pakistan.

Complete Peer review History: <http://www.sdiarticle3.com/review-history/47159>

Original Research Article

Received 24 October 2018
Accepted 09 February 2019
Published 07 March 2019

ABSTRACT

Aim: This study seeks to analyse the managerial challenges that affiliated Credit Unions to Cameroon Cooperative Credit Union League (CamCCUL) are exposed to. The prevalence of Credit Unions with limited managerial capacities in most Cameroonian communities both in rural and urban areas invites corporate parenting from bigger support and supervisory organizations like CamCCUL. This parenting relationship between CamCCUL and her affiliates presumes superior managerial capabilities to affiliates which in most cases is a misplaced expectation. This is prompted by the fact that these institutions affect a multitude of lives both directly and indirectly. The Agency and Stakeholder theories served as foundation.

Study Design: The study adopted a survey and causal exploratory design with both qualitative and quantitative parameters. The focus of the researcher was to explore managerial challenges from

*Corresponding author: E-mail: choforjoyvice@yahoo.com;

the managers themselves and members of credit unions who are better placed to gauge the effectiveness of managerial actions in terms of the service they receive.

Place and Duration: This study was conducted between April 2016 and November 2018, involving 138 of the 210 Credit Unions operating mostly in the Northwest and Southwest regions of Cameroon.

Methodology: The major instrument for data collection was questionnaire and a pilot study of 50 copies was carried out across various Chapters of CamCCUL. With a population of 210, a stratified sample of 138 was obtained using the Taro Yamane Formula. The primary data was tested to be reliable with a 0.701 consistency coefficient using Cronbach alpha. The study employed Chi-Square as a tool of analysis to measure Credit Unions' affiliation to CamCCUL and specific Managerial Challenges.

Findings: The findings revealed that affiliate Credit Unions to face numerous managerial challenges ranging from structural to resources deficiencies. The most alarming of these problems were the lack of autonomy to take managerial decisions and threats from CamCCUL supervisors.

Conclusion: The study concluded that CamCCUL as a league is not operating solely to achieve its mission and has rather kept its affiliated Credit Unions in a tight corner. The researchers recommended that the regulating authorities should render Credit Unions more autonomous where possible. Additionally, there should be well-structured and comprehensive governance policies for the management of all affiliated Credit Unions to comply with.

Keywords: Managerial challenges; affiliated credit unions; CamCCUL.

1. INTRODUCTION

The organisations that are called "Credit Unions" today existed as far back as the 18th Century with alternative names like "the Peoples' Bank", "Credit Associations", and "Cooperative Banks". The initial purpose for their creation was to encourage bulk purchases at the benefit of their members [1].

Credit Unions as the name implies, are associations that are focused on providing loans to members to meet their financial requirements. Though the name may sound misleading, these associations provide both savings and loan facilities not exclusively credit as the name may imply. The obvious reason is that loans can only be possible when savings have been made, to ensure that financial provisions are made out of financial availability [2] describes how important credit cooperatives are in mobilizing savings and making credit facilities highly accessible to its members.

In most capitalist societies, a majority of low to medium income class earners hardly get financial satisfaction from "huge" financial institutions such that they tend to rely on riskier and costlier informal financial services like money lenders and "njangis" as is the case in Cameroon. Given the negative consequences that go with such source of finances, many communities resorted to pooling resources for

the exclusive benefit of its members – concept that has resulted to present day Credit Unions.

The importance of Credit Unions cannot be underestimated in any given society, be it a developed or developing society. Several authors [3,4] recognised the role of Credit Unions on a general note as being the most vital institution amongst other community-based businesses. Though earlier studies have measured the enormous importance of Credit Unions in the domain of credit provision in rural lending and high levels of rural development [5], with the prevalence of financial institutions one may not realise the need to establish Credit Unions in the same economy with major financial institutions like banks given their disparity.

Acknowledging the fact that Cameroon, like any other developing country as revealed by the [6] report has approximately 78 percent of its population situated between the low and middle income class, the establishment of Credit Unions in such a society will thus fill some of the gaps created by the major financial institutions. According to Gaetan [7] though Credit Unions lack financial power, they have succeeded to reduce the poverty levels significantly.

The birth of Credit Unions in Cameroon was at a time when the knowledge base was relatively low and the management of these Credit Unions was highly uncertain and in the hands of amateurs. This was one of the main reasons that led to the creation of an oversight board – CamCCUL to

supervise the operations of the affiliated Credit Unions. The concept took a long time to gain acceptance owing to; government interference, the relative newness of the credit union concept, the fact that it originates from the minority English speaking regions of Cameroon, terminated league staff resulting to slow transfer of skills and misconceptions as “a bank for poor people” from rural areas [8].

After 1993 CamCCUL witnessed a growth with an additional 262,000 membership attributed to: increased democratic structures and transparent operations, clear microfinance regulations, well-defined scope of operations, and increased oversight from the [9].

The interconnected nature of CamCCUL and its affiliated Credit Unions has made it difficult for management to operate as an autonomous unit. In 2011, during the Credit Union Day celebration in Bafoussam, the president of CamCCUL reiterated the malicious intentions of some unions who seek loans with the intention not to repay and to defraud the league. Attempts to reclaim such loans have dragged the parties concerned to the courts and have proven to be quite costly and disruptive for the smooth running of the Credit Unions and CamCCUL simultaneously.

Tanyi and Njodzefe [10], casts doubt on CamCCUL's ability to effectively shoulder the responsibility of acting as an umbrella body for Credit Unions and ensuring that good corporate governance principles be instituted, given that some Credit Union reports always reveal liquidity in spite of members complaining over challenges in drawing from their personal savings. Nyokari [11] casts a shadow of doubt on the ability of the Ministry of Finance given that within its regulatory authority, other financial institutions like Cofinest went bankrupt leaving thousands of Cameroonians stranded. This view complements [12] recommendations on the need for authorities checking respective regulatory bodies for close oversight and examination if the microfinance institution epidemic is to be reduced at its barest minimum. Similarly, [13] have questioned the effectiveness of regulations on Micro Finance institutions (MFIs) in Cameroon cognisant of the fact that MFIs were originally established to roll back poverty.

It is with this background that this study is structured to analyse the managerial challenges of affiliated Credit Unions to Cameroon Cooperative Credit Union League (CamCCUL).

The main objective of this study is to evaluate the managerial challenges faced by managers of affiliate Credit Unions to CAMCCUL by virtue of their parenting relationship.

Specifically, the study examines the effect of authority sharing and managerial controls on the performance of affiliate credit unions.

The hypothesis that guided this study was:

Null Hypothesis (H₀)

Managerial Challenges of Affiliate Credit Unions are independent of their parenting affiliations to CAMCCUL.

Alternative Hypothesis (H_a)

Managerial Challenges of Affiliate Credit Unions are largely shaped by their parenting affiliations to CAMCCUL.

2. THEORETICAL FRAMEWORK AND LITERATURE REVIEW

2.1 Agency Theory [14]

Agency theory by Jensen and Meckling in 1976 attempts to explain the relationship that exist between an agent who has been delegated to act on behalf of the principal and a principal who owns the resources and hires the agent to act on his or her behalf. In reality, these contracting parties have differences in goals and division of responsibility which are quite ambiguous and information dissemination is not symmetrical to both parties making it difficult for the principal to verify the activities of the agent [14]. The agency theory is a supposition that explains the relationship between principals and agents in every relationship similar to business. It is basically aimed at highlighting fundamental aspects that can broaden the understanding of relationship between principal who is the shareholders and agent who are the company executive. The theory equally point to situations that signal the existence of an agency problem and necessary measures to reduce the agency problem. The agency problem attempts to provide solutions to two fundamental agency problems: those that arise when the goals of the principal are different from those of the agent and situations where it is difficult or very costly for the principal to verify the activities of the agent.

Assumptions of the Agency Theory:

1. The principal and the agent are both self-interest beings.
2. The agent's goals are often in conflict or deviates from the goals of the principal.
3. The agent has a fiduciary duty to act solely on the interest of the principal.
4. The agent chooses actions but the principal cannot observe or evaluate the choices.
5. The inherent risks of the business failure are borne by the principal.

This theory is relevant to the study in that, the Cooperative Credit Union League basically existed for the sole purpose of improving on the performance of the Credit Unions. So, it can be interpreted in the agency relationship as the Credit Unions (principal) employing CamCCUL (agent) to function for the betterment of the Credit Union (principal). The agency problem arises when the management of CamCCUL now operates without seeking the opinion of the Credit Unions and how their decisions affect the performance of the Credit Unions.

2.2 Stakeholder Theory

Freeman [15] emphasized the need for management to look beyond the goal of satisfying solely shareholders into including a wider category of groups and individuals. This shift in emphasis has given rise to what is popularly known as the stakeholder approach to management. Every organisation exists to satisfy a group of stakeholders. However, the number of stakeholders that an organisation has varies depending on the nature, type, size and scope of operations of the organisation. The common group of stakeholders usually found in most organisations include; government, community, suppliers, customers, employees, management, finance providers and competitors.

The stakeholders approach attempts to address the principle of "who or what really counts" [15] According to Freeman [16] stakeholders are groups or individuals who can affect and/or in turn be affected by the operations of an organisation. The principle highlighted by Freeman is the basis for determining those to be considered as stakeholders and as such taken into consideration by management when engaging in a rational evaluation of stakeholder-manager relationships. Stakeholders are usually analysed by management for prioritisation and decision making. The relevance

of this theory in this study is owing to the fact that making managerial decisions pose a major challenge to management due to the numerous and conflicting expectations of these stakeholders.

Gaetan [7] investigated the relationship between social and financial performance of MFIs and factors that significantly contribute to the development of the informal sector in Cameroon. The researcher used an exploratory research design with a sample size of 70 out of a study population of 431 microfinance institutions and collected both quantitative and qualitative performance measures. The findings revealed that the major contribution of MFIs is their ability to reach the social objective of fighting poverty, reducing social inequality and promoting local area developments.

Asante [2] examined the impact of credit unions on community development. The data used was obtained from both primary and secondary sources using a convenience sampling method on selected customers. The population for the study was indefinite customers base and six employees of the Credit Union out of which 196 customers were sampled and all the six employees were part of the sample. The survey research design was employed and the major instrument used for data collection was the interview. The findings revealed that Ramseyer Credit Union offers services which help mobilize savings for its members and that it makes credit quite accessible to both individuals and groups and equally offers business advice.

Another study by Gwasi and Ngambi [17] investigated competition and performance of microfinance institutions in Cameroon. The population for the study was 143 microfinance institutions out of which a sample of 25 was used to collect data. The study adopted a survey research design and the major instrument for data collection was a questionnaire. A multiple regression model was specified to relate financial performance which was return on assets to various explanatory variables such as staff productivity, savings mobilization ratio, portfolio risk and operational expenses ratios. The study found out that, contrary to most empirical studies on competition in microfinance industry which has often shown a negative effect on performance, the findings rather revealed a positive coefficient of performance.

Akume and Annicet [13] sort to evaluate the relevance of regulation with the finance sector in

Cameroon. The study population was 468 of Microfinance Institutions from which a sample of 169 was drawn. The researchers employed the Data Envelopment Analysis method and the censored Tobit Model. The study used a non-parametric approach to be able to estimate the score of MFIs efficiency while taking into consideration the dual role of reducing poverty while achieving financial sustainability. The findings showed a 0.422 input oriented efficiency level when return on scale was constant and 0.534 when variables were brought in.

Hussain [18] on his part focused on examining the role of cooperative organisations in rural community development in Nigeria. The study was a meta-analysis study and made use of no respondents and employed a purely qualitative approach. He equally highlighted the prospects and challenges that the management of such institutions encounter. The study reviewed the historical development of cooperative organisations, that is, how friendly societies emerged among working class groups to protect themselves against life hazards through mutual insurance. The concepts of cooperative organisation and types were also highlighted, cooperative principles were discussed amongst which included open and voluntary membership, membership economic participation, autonomy and independence. Challenges and prospects were enumerated and discussed.

3. METHODOLOGY

The survey design was used combining both quantitative as well as qualitative approaches. The study covers all the Credit Unions which were 210 found on the list of affiliated Credit Unions to CamCCUL. The population of the study is therefore 210 Credit Unions and the sample was obtained employing the Taro Yamane formula for determining sample size (n) when the study population (N) is known.

$$\text{Required Sample size } (n) = \frac{N}{1 + Ne^2}$$

Where,

- n = Required sample size
- N = Population size
- e = Tolerance limit.

At the tolerance limit of five percent, the required sample size was:

Therefore,

$$n = \frac{210}{1 + (210 \times 0.05^2)}$$

$$n = 138 \text{ Credit Unions}$$

The research instrument used for this study includes copies of questionnaire which were distributed to the management of the sampled affiliated Credit Unions. A pilot sample of 50 copies of questionnaire was first administered to randomly selected Credit Unions of various Chapters, the essence of which was for a manual check for consistency in the responses obtained with the final questionnaire. Only a period of one week time lapse was given to avoid significant change in human behaviour if given a longer time lapse between the pilot administration and the final questionnaire. After summarising the responses from the questionnaire on STATA version 14, the researcher employed Cronbach Alpha to test for reliability which showed a value of 0.701 which shows a significant level of consistency in responses.

4. RESULTS AND DISCUSSION

The major interest of the researcher was to examine the challenges that the management of Credit Unions in Cameroon encounter when trying to steer the affairs of their respective Credit Unions. To verify this hypothesis, the researchers carried out a qualitative analysis complemented by a quantitative analysis with the use of Chi square statistical technique.

Based on the answers provided by respondents and the additional comments that the respondents provided to the questionnaire, the following analysis was made. One of the fundamental challenges that 92 percent of the respondents mentioned is the fact that management is not allowed the opportunity to use their managerial judgement and competence to take independent decisions concerning fundamental matters for the wellbeing of their Credit Unions. An example that was cited was with respect to deciding on the members to whom loans should be granted though management was responsible for recovering the loan.

Another point is the fact that these board members are elected by CamCCUL whose objectivity has been impaired because of bribes received from board candidates. Another major challenge as mentioned by 88 percent of the respondents is the unqualified staff which

CamCCUL had employed to provide services to their Credit Unions. One respondent cited an example of a holder of a Bachelor of Arts in Literature being a member of an audit team from CamCCUL. Unfortunately, some of these services end up reducing the ability of the management of affiliated Credit Unions and in other instances, the CamCCUL staff threatens to implicate the employees of Credit Unions.

Some 79 percent of respondents' attribute lack of liquidity associated to loan delinquency as a challenge hindering the smooth running of their Credit Unions. CamCCUL which is expected to provide loans to its Credit Unions to improve on their liquidity status rarely complies with this statutory requirement and rather favours Credit Unions that provide tips to obtain loans. More so, the board does not allow management to employ the established models of loan appraisal and usually rely on favouritism in determining those to whom loans should be granted. Additionally, some 56 percent of respondents mentioned the idea that loans are granted to members on the basis of a percentage paid to the member of staff or board member who intervened to make the loan provision possible all in the name of appreciation.

Another major challenge pointed out by 54 percent of the respondents was the fact that CamCCUL has not succeeded to provide a well-structured system of corporate governance for the management of its affiliated Credit Unions, thereby creating gaps for smart management to exploit the Credit Unions which are under their control. Two percent of respondents explained the fact that some CamCCUL workers did collaborate with some management of affiliated Credit Unions and identified loopholes in the system to be exploited for their individual benefit.

The board of directors as mentioned by 68 percent of respondents had to resort to employee exploitation, whereby they ignored the legal payment scheme and hide under the canopy of negotiable salaries to under pay employees. A strong boost to this illegal and inhuman act of boards of directors is the high unemployment rate which is alarming in Cameroon.

A total of 32 percent of respondents mentioned the numerous committees that CamCCUL had stipulated that each affiliated Credit Union's board must be composed of. According to them, these committees did not have clearly defined

roles and functions which leaves them with no guidance as to the number of board sittings to be held each year. This rather served as a forum for most of the committee members to collect finances from management to provide some services for the benefit of its Credit Unions which ended up actually being used to pursue personal goals. As mentioned by a respondent, some of the committees were comprised of First School Leaving Certificate (FSLC) holders for the sole reason that they had a significant level of savings in the Credit Union. The members of committees with such qualifications do not have the requisite knowledge to contribute significantly to the growth and development of their respective Credit Unions.

Another major challenge as mentioned by 42 percent of respondents was the unethical behaviour of management owing to the fact that the board of directors of the Credit Unions compel them to do so. Management at times was forced to "window dress" their financial statements in order to hide significant assets which could push the Credit Unions to be reclassified. An example cited was the fact that management had to hide significant assets of the Credit Union given that net assets beyond a threshold limit of FCFA 50 billion.

The qualitative findings were complemented with a quantitative analysis employing the Chi Square statistical technique. The Chi Square statistical technique determines how close the responses of challenges series of counts will come to a true Poisson distribution. In this study, the Chi Square statistical technique is employed as a "Goodness of fit test" which seeks to determine whether the sample population are consistent with a hypothesized distribution.

The findings reveal on the Table above show that the Credit Unions affiliated to CamCCUL face the following challenges: lack of qualified and experienced staff, less objectivity, ambiguity in policies guiding staff, no clear limits, lack of freedom in decision making, unclear functions of committees, CamCCUL suppression on management and no freedom to choose activities. Except for less objectivity all the variables are statistically significant at one (1) percent level of significance at n-1 degree of freedom which is 132. Less objectivity in the Credit Unions is significant at five (5) percent level of significance at the same degree of freedom.

Table 1. Chi square results on goodness of fit between the challenges faced by Credit Unions given the existence of CamCCUL

Challenges faced by Credit Unions given the existence of CamCCUL	N	Mean	Std. Deviation	Chi-Squaredf	Asymp. Sig. p-values
Lack of qualified and experienced staff	133	1.06	.736	259.520	1 0.00
Less objectivity	133	1.05	.744	36.500	1 0.04
Ambiguity in policies guiding Staff	133	1.98	.804	235.760	1 0.00
No clear limits	133	1.69	.873	238.160	1 0.00
Lark of freedom in decision making	133	1.05	.770	242.160	1 0.00
Unclear functions of committees	133	1.06	.757	250.980	1 0.00
CamCCUL suppression on management	133	1.78	.938	227.440	1 0.00
No freedom to choose activities	133	1.91	.793	261.520	1 0.00
Valid N (listwise)	133				

Source: Computed by Author, 2017

The Chi square results showed that the p-values for seven (7) challenges are less than the α value at one (1) significance level ($\alpha = 0.01$). While one of the challenges (less objectivity) is p-value of 0.04 is less than α value at five (5) significance level ($\alpha = 0.05$). Based on the decision rule, we therefore reject the null hypothesis which stated that there is no significant difference between observed and expected frequencies and fail to reject the alternative hypothesis which stated that there is a significant difference between observed and expected frequencies. Thereby concluding that, there are managerial challenges faced by affiliated Credit Unions to CamCCUL.

5. CONCLUSION AND RECOMMENDATIONS

This study rounds up with the empirical proof that, CAMCCUL in its statutory supervisory role has tended to limit the managerial flexibility of affiliated credit unions, resulting in unproductive decision and strategies that are vetoed by the parent (CAMCCUL). The focus should therefore be tilted towards fashioning strategies that can be employed to overcome or mitigate these challenges. Basically it is expected that some of these challenges are externally driven which the management of affiliated Credit Unions cannot do anything to control them. However, there are other challenges that are internally driven which they could structure tactics either separately as respective Credit Unions or as joint efforts with other Credit Unions to enforce their claims or desires on CamCCUL.

These Credit Unions that were labelled “bank for the poor” in the ancient times have gradually become so inaccessible even to those referred to as the “poor” due to vetoed managerial strategies

by CAMCCUL that alienate potential members. This has left the low-income class earners of the communities very vulnerable to unmet financial needs. This and many other justifications should be the basis on which action needs to be taken to turn the table around again.

Based on the findings, the researchers recommend that:

- The government, through the Ministry of Finance, should relax the requirements of affiliating or disaffiliating from the CamCCUL, so that Credit Unions that can afford to stand alone without connecting to the league can be independent.
- The administration of CamCCUL should be structured to encourage competition. Wherein management has a stipulated and restricted duration to be in office and renewable based on performance only. This is likely to improve on the ability of management to be highly objective in the dealings of the league and affiliated Credit Unions.
- The Ministry of Finance should produce harmonized, comprehensive policies and principles to guide the operations of all Credit Unions which are only to be monitored by leagues for compliance rather than leaving everything in the hands of the league. This will reduce the degree of challenges that the management of Credit Unions face due to the existence of CamCCUL.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. South Central Middlesbrough Credit Union Limited. History of community banking. Cleveland; 2015. (Retrieved October 4, 2015) Available:www.scmcu.org.uk/A-
2. Asante GK. The impact of credit unions on community development: A case study of Ramseyer credit union. Unpublished Master in Business Administration Thesis. College of Humanities and Social Sciences, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana; 2015.
3. Nembhard GJ. Community development credit unions: Securing and protecting assets in black communities. *The Review of Black Political Economy*. 2013;40:459–490.
4. Mofor A. An investigation on the role of credit unions in the Cameroon economy. Unpublished Personal Study, Staff, Tole Tea Cooperative Union, Buea, Cameroon; 2010.
5. Gweyi MO, Ndwiga PM, Karagu JM. An investigation of the impact of cooperative movement in rural development in Kenya. *International Journal of Business and Commerce*. 2013;3(2):01-13. ISSN: 2225-2436.
6. World Bank. Annual Report on Cameroon. World Bank; 2015.
7. Gaetan DB. Analysis of microfinances' performance and development of informal institutions in Cameroon. Unpublished Master Dissertation on Finance and Control, Amity University, India; 2012.
8. Ayeah M. An internship report on the services of the statistics department of CamCCUL. Unpublished Internship, National Polytechnic College, Bambui, Cameroon; 2013.
9. GLASGOW. World credit union conference; 2011. (Retrieved January 18, 2016) Available:www.woccu.org/events/pastconferences/glasgow11
10. Tanyi KM, Njodzefe N. The dawn of credit unions in Cameroon. *The Median Newspaper*, 19 July, Yaounde, Cameroon; 2012.
11. Nyokari TA. The collapse of micro finance institutions in Cameroon. Unpublished Thesis, Faculty of Management Studies, University of Yaounde I, Yaounde, Cameroon; 2013.
12. Ambongwi NC. The role of micro finance institution in poverty alleviation in North West region of Cameroon. Unpublished Undergraduate Thesis, School of Business, Catholic University Institute of Buea, Buea, Cameroon; 2015.
13. Akume DA, Annicet BMN. The performance of microfinance institutions in Cameroon: Does financial regulation really matter? *Research Journal of Finance and Accounting*. 2017;8(2). ISSN: 2222-1697 (Paper) ISSN 2222-2847 (Online).
14. Jensen MC, Meckling WH. Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics* (October). 1976;3(4): 305-360.
15. Freeman RE. Strategic management: A stakeholder approach. (5th Ed.) Boston: Pitman; 2009.
16. Freeman RE. The politics of stakeholder theory: Some future directions. *Business Ethics Quarterly*. 1994;4:409-421.
17. Gwasi N, Ngambi MT. Competition and performance of microfinance institutions in Cameroon. *International Journal of Research in Social Sciences*. 2014;3(8). ISSN: 2307-227X.
18. Hussain MS. The role of cooperative organizations in rural community development in Nigeria: Prospects and challenges. *Academic Research International*. 2014;5(3).

© 2019 Buwah and Joyvice; 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:
<http://www.sdiarticle3.com/review-history/47159>