

Do personal values influence research self-efficacy among academics in public universities in Tanzania?

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Abstract

Purpose – The study aims to investigate how personal values (PVS) influence research self-efficacy (RSE) among academics in public universities in Tanzania.

Design/methodology/approach – A cross-sectional design was utilized by the study to gather data once through structured questionnaires administered to 247 academic staff from four public universities in Tanzania.

Findings – Generally, the results show that PVS positively and significantly influence RSE in universities. Specifically, OPC has β value of 0.284 and $p < 0.001$, SEFN has $\beta = 0.352$ and $p < 0.001$ and CONS has a $\beta = 0.198$ and $p = 0.003$.

Practical implications – University management should include PVS as among the criteria for recruitment of academic staff, as it determines their confidence in engaging in research.

Originality/value – The findings of this study broaden the applicability of Schwartz human values theory in Tanzania's universities. Moreover, by carrying out empirical research on the influence of PVS on RSE in developing context such as Tanzania, the study contributes to the body of literature on PVS and RSE.

Keywords Personal values, Research self-efficacy, Universities, Tanzania, Academics

Paper type Research paper

1. Introduction

Due to its organizational implications, the notion of self-efficacy (SE), which stems from the social cognitive theory of behavioral change by Bandura, has received a significant attention in management research (Sousa, Coelho, & Guillaumon-Saorin, 2012). Bandura (1997) explains SE as individual's belief in their capabilities to successfully accomplish tasks. It is recognized as a motivational tool that influences individual's behavior and thoughts (Tep, Maneewan, Chuathong, & Easter, 2021). SE helps people decide how much energy they should put into an activity, how long they will remain steadfast in the face of difficulties, and how tough they will look under adverse situations (Barni, Danioni, & Benevene, 2019; Wood & Bandura, 1989). As a result,

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individuals with higher levels of SE beliefs put out more effort, are more resilient and experience calmness when faced with challenging tasks (Bandura, 1977). On the other hand, those who have a low sense of their own ability to succeed tend to overestimate how tough activities are, which can lead to emotions of failure, anxiety and helplessness (Bandura, 1977). Therefore, this affirms that SE is a crucial component to envisage and enhance performance in organizational contexts. This calls up for a more understanding of the antecedents of SE.

In universities, academics engage in teaching, research and service-related activities (Mulugeta, 2020; Ismayilova & Klassen, 2019). However, these activities are distinctive in nature hence academics are required to have distinct abilities and skills to successfully undertake these activities (Ndiango, Kumburu, & Jaffu, 2023). Moreover, since SE is task-specific concept (Koca, Kiliç, & Dadandi, 2023), the confidence of academics in undertaking their key roles (teaching, research and service activities) also varies based on the activity (Ndiango *et al.*, 2023). Unlike teaching and service-related activities, the aspect of research has been identified to be more crucial in universities (Ndiango *et al.*, 2023). Therefore, the survival and advancement of academics in academia depend much on how much they engage in research activities (Ocampo *et al.*, 2022). Despite this fact, researchers identified that some academics are confident in engaging in research while others are not. Research self-efficacy (RSE) determines research productivity, in such a way that those who have high RSE can conduct many and better research than their counterparts (Wajid & Jami, 2020). Specifically, it determines one's attitude toward research and comfortability in conducting research activities (Gaoat, Magbitang, Bumanglag, & Ramirez, 2023). Being a determinant of the level of energy, one can put into an activity, RSE can be influenced by someone's PVS (Tep *et al.*, 2021; Bandura, 1997). This is due to the fact that values serve to promote and direct personal goals, while these goals influence an individual's SE (Jacobs & Wollny, 2022; Tep *et al.*, 2021).

Prior research has identified that PVS predicts SE (Akça & Alabay, 2023; Tep *et al.*, 2021; Barni *et al.*, 2019; Sousa *et al.*, 2012). Yet, these studies are very limited in scope. In spite of the contribution of previous studies, it is important to note that SE is a multidimensional task-specific concept that involves different competency areas (Koca *et al.*, 2023; Bandura, 2012). Thus, different activities call for different levels of SE. Particularly, research activities are uniquely intellectually demanding since the researcher is required to find, understand, organize and analyze information to produce scientific and reliable conclusions (Wajid & Jami, 2020). Therefore, apart from the already established role of PVS on SE, the investigation of the influence of PVS on academics SE in carrying out research activities is under investigation. Thus, to fill this gap, the current study aims at examining whether PVS influence RSE among academics in universities in Tanzania. The findings of the study will provide valuable information to managers and academic staff in universities which will aid them in enhancing RSE.

2. Review of literature and hypothesis development

2.1 Schwartz theory of human values

Schwartz theory suggests that people hold several values which guide their evaluation, decisions and actions toward different things in varying circumstances (Ponizovskiy *et al.*, 2020; Schwartz, 1992). Schwartz (1992) presented 10 basic PVS which are categorized into four dimensions, namely, openness to change (OPC), self-enhancement (SEFN), self-transcendence (SETR) and conservation (CONS). However, Sousa *et al.* (2012) claim that, SETR does not relate to work settings. PVS are important in shaping individuals' actions by guiding their decision-making process and providing a rationale for their behaviors (Ndiango, Kumburu, & Jaffu, 2023; Nilsson & Lundmark, 2020). People are driven to act based on the values they hold, and they seek alignment between their beliefs and behaviors (Rickaby, Glass, & Fernie, 2020; Levontin & Bardi, 2019). Moreover, in expressing their values through actions, people strive to achieve their objectives and fulfill their personal

targets (Jacobs & Wollny, 2022; Lebedeva, Schwartz, van de Vijver, Plucker, & Bushina, 2019). The desire to fulfill ones' goals as well as reach personal targets, boost individuals' confidence in undertaking their activities (Barni *et al.*, 2019). In the universities context, the values that academics hold can influence their confidence in undertaking research activities by providing motivation and shaping their beliefs on their capabilities.

2.2 PVS and RSE

Despite having studies which examined the role of PVS on SE (Tep *et al.*, 2021; Barni *et al.*, 2019), they are still limited in scope. As far as the researchers are aware, this relationship is under investigated in universities in developing countries like Tanzania. Moreover, given the fact that, SE is a multidimensional aspect with varying competencies based on the activity done, the research aspect in universities has not received any attention in the literature (Koca *et al.*, 2023; Bandura, 2012). Thus, given the importance of SE in influencing behaviors in different work settings (Wood & Bandura, 1989), this study, therefore, targets on examining the role of PVS in influencing RSE among academics in universities in Tanzania.

OPC is characterized by the willingness to actively choose, make, and discover as well as an inclination for uniqueness and change (Ndiango *et al.*, 2023; Schwartz, 1992). Individuals who value openness prefer variety, challenge, independence of thought and flexibility (Schwartz, 2007). Moreover, OPC relates to gaining new knowledge, the ability to organize data, learning through trial and error and sense of accomplishment (Sousa *et al.*, 2012). Therefore, OPC values can help individuals to generate belief in their ability to do activities of varying nature. Academics with high OPC are expected to be more inquisitive and broad-minded and are ready to absorb new pieces of information as well as seeking activities that provide new experiences (Ndiango *et al.*, 2023; Purc & Lagun, 2019). It is thus assumed that academics with high OPC are more inclined to exhibit self-confidence in their competences to accomplish research-related activities. Therefore, the following hypothesis is formulated:

H1. OPC positively and significantly influence RSE

SEFN is concerned with the desire for esteem and social superiority with the motivational goal of enhancing their own personal interests (Schwartz, 1992). Individuals with high SEFN values are driven to perform highly on their jobs so as to maintain their positions and status in society. This drive can lead them to invest in their competencies, which in turn may enhance their belief in their ability (Sousa *et al.*, 2012). These individuals are motivated to develop their competences in order to achieve their goals of demonstrating effective performance and obtaining a dominant position in society (Beller, 2021). In this sense, academics who value SEFN may strive to generate a feeling of confidence so that they can engage well in research activities in order to maintain their status in academia. Thus, the more academic staff ascribe more importance on self-enhancement, the more confident they become in performing research-related activities. Hence it is worth hypothesizing that:

H2. SEFN is positively and significantly related to RSE

CONS express the significance of maintaining stability and security in one's environment (Bojanowska & Urbańska, 2021; Schwartz, 1992). Individuals who place more importance on CONS goals value stability in their lives and prefer to maintain things the way they are (Levontin & Bardi, 2019). In work settings, valuing stability means placing importance on maintaining a sense of consistency, predictability and continuity in an individuals' career. Thus, those who value stability in their workplace naturally seek security and a steady work environment (Bardi & Schwartz, 2003). Given that fact, they comply with the set standards and policies which guide their roles (Levontin & Bardi, 2019). In the perspective of this study, academics who endorse more importance on CONS are expected to seek ways to

safeguarding stability in their academic careers which in turn boost their SE particularly in research activities. Hence it is worth hypothesizing that:

H3. CONS positively and significantly influence RSE

3. Methodology

3.1 Research design and areas of the study

The study is based on four universities in Tanzania, namely, Sokoine University of Agriculture, Nelson Mandela Institution of Science and Technology, University of Dar es Salaam and Muhimbili University of Health and Allied Sciences. Criteria used to choose these universities based on how old the institution is together with the distinctiveness of the programs provided (Ndiango *et al.*, 2023; TCU, 2019). Furthermore, a cross-sectional design was applied which facilitated gathering data just once (Changalima, Ismail, & Mwaiseje, 2022). Unlike a longitudinal design where data are collected over a prolonged period (Doering, Suresh, & Krumwiede, 2020), cross-sectional design is quick and cheaper as it allows data collection within a short timeframe (Setia, 2016). Moreover, since the study aimed at testing the hypothesis, a quantitative approach was used. The quantitative approach allows for testing the hypothesis as well as examining cause and effect relationship among variables (Apuke, 2017).

3.2 Data collection and sampling

The population studied which involved academics who are associate professors, lecturers and senior lecturers was acquired from the corresponding universities prospectus and it involved 971 academics. These categories of academics were chosen since their promotion and advancement in academia depend largely on research and publication, regardless of other factors (Makulilo, 2021; TCU, 2019). The study further utilized a confidence interval of 95% and Yamane formula to determine the actual sample to be involved in the study. Yamane formula was found suitable to determine the sample size of the study as it takes into account the size of the target population and the desired confidence interval to determine the sample size (Yamane, 1967). Therefore, based on the results, a sample of 283 was obtained. Afterward, the study obtained a sample that reflects the characteristics and diversity of the population from each group in each university by employing a random sampling technique. A simple random technique allows each element in the studied sample to have an equitable chance to be selected hence reducing biasness in data collection (Nazari *et al.*, 2021).

On the other side, the study used a questionnaire survey as a dominant method for data collection. Questionnaires are less time-consuming and cost-effective when compared to other data collection methods and they facilitate data collection from a large population (Kim, Ku, Kim, Park, & Park, 2016). Before data collection, the questionnaire underwent preliminary testing and was subsequently refined in accordance with the feedback received. Moreover, from 283 questionnaires that were administered to respondents, just 247 were received with complete information to be used in the study.

3.3 Measures of study variables

Measures for variables of the current study were drawn from prior studies. PVS were measured using a Portrait Values Questionnaire with 21 items (PVQ-21) (Bardi and Schwartz, 2003). The scale measures how much individuals value the basic values defined in Schwartz (1992) value theory. More specifically, OPC had six items, SEFN four items and CONS has six items. The items consist of descriptions explaining goals, aspirations and a person's wishes, whereas respondents were asked to indicate on a five-point Likert scale ranging from (1-strongly disagree to 5-strongly agree) how much they agree or disagree on the descriptions relating to their PVS. PVQ-21 has

been identified to be short, easy to use and appropriate for all people (de Wet *et al.*, 2019; Cieciuch & Davidov, 2012). Similarly, a five-point Likert scale was used to measure RSE. The scale for RSE was adopted from Holden, Barker, Meenaghan, and Rosenberg (1999) which measured how academics are confident in their capabilities to execute research.

3.4 Data analysis plan

Based on the fact that the variables of the study are latent, structural equation model (SEM) was employed to determine the strength of the relationship between the variables. Hair, Black, Babin, and Anderson (2010) suggest that SEM is a suitable vigorous multivariate tool for examining connections among constructs that involve both latent and observable variables. The study initially conducted confirmatory factor analysis (CFA) to estimate how well the collected data align with the measurement model (Hooper, Coughlan, & Mullen, 2008). Moreover, CFA results assessed the validity and reliability of the scales used in the study. Furthermore, the study evaluated the structural model which helped to test the effects of the relationships of the variables of the study.

3.5 Reliability and validity

The study used Cronbach’s alpha (α) which is the popular measurement to assess internal consistency in organizational and social sciences (Cronbach, 1951). Based on the results as presented in Table 1, all values of α are above the acceptable range of 0.7 (Taber, 2018). Specifically, the α value of OPC is 0.908, SEFN is 0.880, CONS is 0.922 and RSE is 0.963. Hence, the variables included in the study were considered to be reliable. Similarly, the results indicate that the values for composite reliability (CR) are within the acceptable range.

Additionally, convergent validity was tested by evaluating the average extracted variance (AVE) where the findings as presented in Table 1 show that the convergent validity has been achieved as all AVE values for each construct are significantly higher than the suggested value of 0.5 (Hair *et al.*, 2010). Similarly, discriminant validity was evaluated by comparing the inter-construct correlations to each construct’s square root of AVE. The results in Table 1 show that the values of the square root of AVE (italic values) are greater compared to the corresponding inter correlations thus discriminant validity was attained (Fornell & Larcker, 1981).

3.6 Common method variance

Common method variance is a counterfeit correlation that rises from using the same method to measure the relationship among variables (Craighead, Ketchen, Dunn, & Hult, 2011). Harman single-factor method has been employed to evaluate the presence of any important common method bias matter in the study. The outcomes showed that one particular aspect of the model could explain almost 42.2% of the differences observed indicating that shared bias was not a major issue since the value is below 50% (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003).

Variables	Cronbach’s alpha	CR	AVE	RSE	CONS	OPC	SEFN
RSE	0.963	0.962	0.737	<i>0.858</i>			
CONS	0.922	0.921	0.663	0.410	<i>0.814</i>		
OPC	0.908	0.908	0.623	0.444	0.400	<i>0.789</i>	
SEFN	0.880	0.884	0.657	0.515	0.328	0.331	<i>0.811</i>

Table 1. Reliability and validity
Note(s): Italic values represent the square root of AVE
Source(s): Table by authors

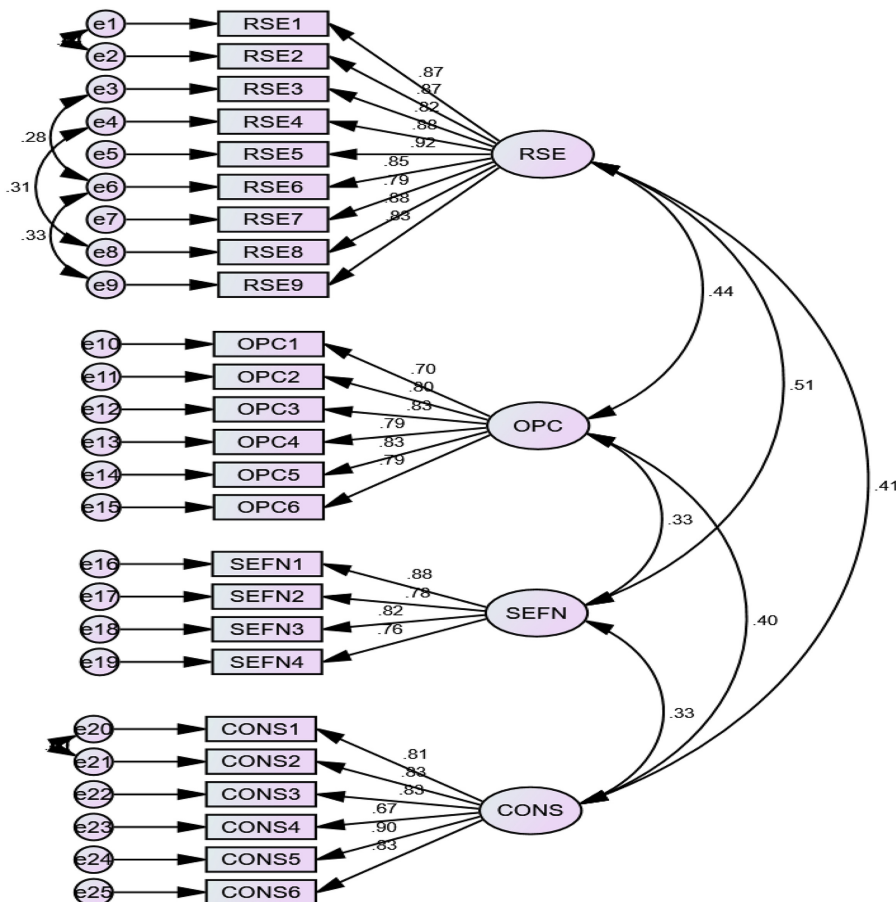
4. Discussions of findings

4.1 Results of CFA

CFA was utilized to evaluate the model measurement as well as determine the validity of all variables in the study. The outcomes of CFA offer the model fit indices that can be utilized to weigh how well the model fits the data (Herwin & Nurhayati, 2021). The results indicate that the model fit well the data with values of CMIN/DF = 1.751 which is acceptable since it is below 3 (Hooper *et al.*, 2008). RMSEA = 0.055 which is within the acceptable range of 0.005 to 0.008. SRMR = 0.042 which is acceptable as it is less than 0.08. Pclose = 0.148 which is greater than 0.05. Other model fit indices are CFI = 0.962, NFI = 0.916, RFI = 0.904, IFI = 0.962 and TLI = 0.957. Hooper *et al.* (2008) suggested that these values should at least be close to 1, hence they are acceptable. Moreover, as indicated in Figure 1, the factor loadings exceed 0.5, demonstrating that items explain well the latent constructs.

4.2 Structural model

The structural model and study's hypothesis have been analyzed using the path coefficients and variance as indicated in Figure 2. The fit indices of the structural model revealed an



Source(s): Authors (2022)

Figure 1.
CFA model

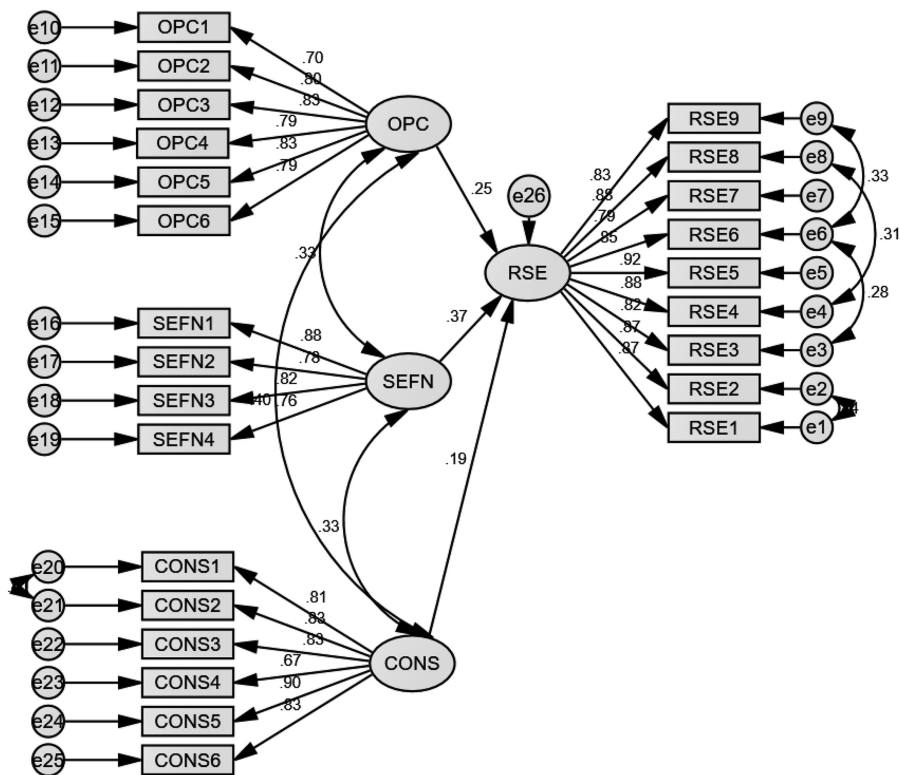


Figure 2.
Structural model

Source(s): Authors (2022)

Table 2.
Structural path
analysis

Variables	Estimate	S.E.	C.R.	p	Decision
RSE ← OPC	0.284	0.076	3.719	***	Accepted
RSE ← SEFN	0.352	0.061	5.755	***	Accepted
RSE ← CONS	0.198	0.067	2.978	0.003	Accepted

Note(s): Model fit indices: $\chi^2/df = 1.751$, CFI = 0.962, NFI = 0.916, RFI = 0.904, IFI = 0.962, TLI = 0.957, SRMR = 0.042, RMSEA = 0.055 and PClose = 0.148

Source(s): Table by Authors

OPC influence students' creative SE positively. Whereas, based on the findings of [Barni et al. \(2019\)](#) who carried out a study among teachers to examine the association of PVS and SE, it was revealed that OPC and SE of teachers diverse based on external conditions.

In [H2](#), the study aimed at examining the influence of SEFN values on RSE. The findings supported the hypothesis, that SEFN positively and significantly influences on RSE with $\beta = 0.352$ and $p < 0.001$. SEFN explains the need to develop and improve self-interests according to social standards and prestige. Academics who attribute more importance on SEFN values are more confident in their capabilities to engage in research-related activities and will always strive to succeed so as to gain external rewards such as promotions or bonuses as well as maintain social standards in life. The findings align with those of [Sousa et al. \(2012\)](#) who found a positive significant influence of SEFN on SE thus indicating that frontline service personnel who are driven by self-improvement are more assured of their capacity to perform their tasks well.

In [H3](#), it was hypothesized that CONS have a positive and significant influence on RSE. The findings supported the hypothesis that CONS positively and significantly influences RSE with $\beta = 0.198$ and $p = 0.003$. CONS values identify the need to keep things the way they are, including the desire for predictability and risk avoidance. Academics who endorse higher importance on CONS values experience a sense of security in carrying out their activities including research-related activities so as to attain their goals in academia. The findings go hand in hand with those of [\(Barni et al., 2019\)](#) who found that CONS values influence teachers' SE. The desire to maintain stability in their field of education drives these teachers to engage fully in attaining their goals hence improving their confidence as well. On the other hand, the findings contrast with those of [Sousa et al. \(2012\)](#) who found CONS values to be negatively associated with SE.

5. Conclusion and study implications

5.1 Conclusion of the study

Empirical literature on how PVS predict SE is not much extensive ([Akça & Alabay, 2023](#); [Barni et al., 2019](#)). Regrettably, this relationship is under investigation in the context of research activities in universities. Hence, the current study used the basic human values theory by [Schwartz \(1992\)](#) to investigate how PVS impact RSE among academics in public universities in Tanzania. From the results, it can be inferred that PVS determine academics SE in carrying out research activities in universities. Particularly, the study concludes that OPC values determine RSE among academics in higher learning institutions. Moreover, it is concluded that SEFN values among academics in higher learning institutions influence their RSE. Finally, we conclude that research academics SE is affected by their CONS values.

5.2 Implications of the study

The results of the study have implications for theory, management of universities and academics. Theoretically, the study contributes to PVS and RSE literature in several ways. First, the study broadens the use of the integration of Schwartz theory of human values and the concept of SE by bringing in RSE in the context of academics in universities. Therefore, findings from the study extend the limited literature on RSE in relation to PVS. Furthermore, the study responds to the calls put forth by other scholars who have recommended more investigation on the antecedents of SE. Thus, the current study presents a comprehensive investigation of the link between PVS and RSE.

Moreover, the findings of this current study have practical implications for the management of universities. The results inform the management that in the quest for improving research productivity, they should pay special attention to enhancing RSE of academics through recruiting people who highly value OPC, SEFN and CONS. Moreover, the results further suggest that the management of higher learning institutions should create an environment

which supports and foster OPC values, SEFN values and CONS values in universities. Finally, to academics, the findings of this study imply that, for enhancing their RSE and research productivity in general, they should enrich the way they value OPC, SEFN and CONS.

6. Limitations and recommendations for further studies

Despite its contributions, the study put forward some limitations which need to be addressed in the future. First, the study applied a cross-sectional design to determine how PVS influence RSE. Further studies can apply longitudinal design so as to see how RSE changes in response to changes that take place in the way academics value OPC, SEFN and CONS over time. Second, the study adopted PVS measure that includes unidimensional aspects of each dimension. Since the Schwartz theory provides 10 basic values, other studies may consider examining each of these values independently to see how they may influence RSE. Moreover, the study is based only on higher learning institutions which are universities. Future studies can attempt to extend the population of the study so as to include academics who are working in higher learning institutions that are not universities.

Reference

- Akça, F., & Alabay, G. G. (2023). Investigation of the relations between personal values and self-efficacy perceptions of adolescents. *International Journal of Education and Literacy Studies*, 11(1), 103–111.
- Apuke, O. D. (2017). Quantitative research methods: A synopsis approach. *Kuwait Chapter of Arabian Journal of Business and Management Review*, 6(11), 40–47. Doi: [10.12816/0040336](https://doi.org/10.12816/0040336).
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191–215.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W H Freeman/Times Books/Henry Holt & Co.
- Bandura, A. (2012). On the functional properties of perceived self-efficacy revisited. *Journal of Management*, 38(1), 9–44. doi: [10.1177/0149206311410606](https://doi.org/10.1177/0149206311410606).
- Bardi, A., & Schwartz, S. H. (2003). Values and behavior: Strength and structure of relations. *Personality and Social Psychology Bulletin*, 29(10), 1207–1220. doi: [10.1177/0146167203254602](https://doi.org/10.1177/0146167203254602).
- Barni, D., Danioni, F., & Benevene, P. (2019). Teachers' self-efficacy: The role of personal values and motivations for teaching. *Frontiers in psychology*, 10, 1645.
- Beller, J. (2021). Personal values and mortality: Power, benevolence and self-direction predict mortality risk. *Psychology and Health*, 36(1), 115–127. doi: [10.1080/08870446.2020.1761976](https://doi.org/10.1080/08870446.2020.1761976).
- Bojanowska, A., & Urbańska, B. (2021). Individual values and well-being: The moderating role of personality traits. *International Journal of Psychology*, 56(5), 698–709. doi: [10.1002/ijop.12751](https://doi.org/10.1002/ijop.12751).
- Changalima, I. A., Ismail, I. J., & Mwaiseje, S. S. (2022). Obtaining the best value for money through procurement planning: Can procurement regulatory compliance intervene?. *Journal of Money and Business*, 2(2), 133–148. doi: [10.1108/jmb-11-2021-0056](https://doi.org/10.1108/jmb-11-2021-0056).
- Cieciuch, J., & Davidov, E. (2012). A comparison of the invariance properties of the PVQ-40 and the PVQ-21 to measure human values across German and Polish Samples. *Survey Research Methods*, 6(1), 37–48. doi: [10.5167/uzh-63007](https://doi.org/10.5167/uzh-63007).
- Craighead, C. W., Ketchen, D. J., Dunn, K. S., & Hult, G. T. M. (2011). Addressing common method variance: Guidelines for survey research on information technology, operations, and supply chain management. *IEEE Transactions on Engineering Management*, 58(3), 578–588. doi: [10.1109/TEM.2011.2136437](https://doi.org/10.1109/TEM.2011.2136437).
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16(3), 297–334. doi: [10.1007/BF02310555](https://doi.org/10.1007/BF02310555).

- de Wet, J., Wetzellhütter, D., & Bacher, J. (2019). Revisiting the trans-situationality of values in schwartz's Portrait values questionnaire. *Quality and Quantity*, 53(2), 685–711. doi: [10.1007/s11135-018-0784-8](https://doi.org/10.1007/s11135-018-0784-8).
- Doering, T., Suresh, N. C., & Krumwiede, D. (2020). Measuring the effects of time: Repeated cross-sectional research in operations and supply chain management. *Supply Chain Management*, 25(1), 122–138. doi: [10.1108/SCM-04-2019-0142](https://doi.org/10.1108/SCM-04-2019-0142).
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39. doi: [10.2307/3151312](https://doi.org/10.2307/3151312).
- Gaoat, M. P., Magbitang, T. D., Bumanglag, J. D., & Ramirez, J. F. M. (2023). Research self-efficacy among business education students of a higher education institutional in northern Philippines. *American Journal of Interdisciplinary Research and Innovation*, 2(1), 7–12. doi: [10.54536/ajiri.v2i1.1145](https://doi.org/10.54536/ajiri.v2i1.1145).
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. (2010). *Multivariate data analysis* (7th Edition). New York: Pearson.
- Herwin, & Nurhayati, R. (2021). Measuring students' curiosity character using confirmatory factor analysis. *European Journal of Educational Research*, 10(2), 773–783. doi: [10.12973/EU-JER.10.2.773](https://doi.org/10.12973/EU-JER.10.2.773).
- Holden, G., Barker, K., Meenaghan, T., & Rosenberg, G. (1999). Research self-efficacy. *Journal of Social Work Education*, 35(3), 463–476. doi: [10.1080/10437797.1999.10778982](https://doi.org/10.1080/10437797.1999.10778982).
- Hooper, D., Coughlan, J., & Mullen, M. R. (2008). Structural equation modelling: Guidelines for determining model fit. *Electronic Journal of Business Research Methods*, 6(1), 53–60.
- Ismayilova, K., & Klassen, R. M. (2019), “Research and teaching self-efficacy of university faculty: Relations with job satisfaction”, 98(August), 55–66. doi: [10.1016/j.jer.2019.08.012](https://doi.org/10.1016/j.jer.2019.08.012).
- Jacobs, I., & Wollny, A. (2022). Personal values, trait emotional intelligence, and mental health problems. *Scandinavian Journal of Psychology*, 63(2), 155–163.
- Kim, H., Ku, B., Kim, J. Y., Park, Y. J., & Park, Y. B. (2016), “Confirmatory and exploratory factor analysis for validating the phlegm pattern questionnaire for healthy subjects”, *Evidence-Based Complementary and Alternative Medicine*, 2016, 1–8.
- Koca, F., Kılıç, S., & Dadandi, İ. (2023). Attitudes towards distance education and academic life satisfaction: The mediation role of academic self-efficacy and moderator role of gender. *Technology, Knowledge and Learning*, 0123456789. doi: [10.1007/s10758-023-09645-x](https://doi.org/10.1007/s10758-023-09645-x).
- Lebedeva, N., Schwartz, S. H., van de Vijver, F. J. R., Plucker, J., & Bushina, E. (2019). Domains of everyday creativity and personal values. *Frontiers in Psychology*, 9(JAN), 1–16. doi: [10.3389/fpsyg.2018.02681](https://doi.org/10.3389/fpsyg.2018.02681).
- Levontin, L., & Bardi, A. (2019). Using personal values to understand the motivational basis of amity goal orientation. *Frontiers in Psychology*, 9, 2736. doi: [10.3389/fpsyg.2018.02736](https://doi.org/10.3389/fpsyg.2018.02736).
- Makulilo, A. (2021). ‘Where to publish?’ Avoiding mediocrity for academic staff promotion at the University of Dar es Salaam. *The African Review* (48, pp. 1–26).
- Mulugeta, F. (2020). Academic staff satisfaction in the core elements of their job in higher education Academic staff satisfaction in the core elements of their job in higher education. November, 8, 247–255. doi: [10.15413/ajer.2020.010](https://doi.org/10.15413/ajer.2020.010).
- Nazari, N., Salahshoor, M. R., Özdenk, G. D., Zangeneh, A., Lebni, J. Y., Foroughinia, S., and ... Ziapour, A. (2021). A study of the components of Research Self-efficacy in postgraduate students at Kermanshah University of Medical Sciences in 2018. *Journal of Public Health*, 29(5), 1243–1250. doi: [10.1007/s10389-020-01194-2](https://doi.org/10.1007/s10389-020-01194-2).
- Ndiango, S., Kumburu, N. P., & Jaffu, R. (2023). Research self-efficacy and research productivity: evidence from academics in Tanzanian public higher education institutions. doi: [10.1108/JARHE-09-2022-0308](https://doi.org/10.1108/JARHE-09-2022-0308).
- Ndiango, S., Kumburu, N. P., & Jaffu, R. (2023). The influence of openness to change on academics ' research publication in public higher education institutions in Tanzania. doi: [10.1108/LBSJMR-01-2023-0004](https://doi.org/10.1108/LBSJMR-01-2023-0004).

- Nilsson, J., & Lundmark, C. (2020). The effect of personal values and the roles on representational principles in natural resource management decision-making. *Heliyon*, 6(5), e04032. doi: [10.1016/j.heliyon.2020.e04032](https://doi.org/10.1016/j.heliyon.2020.e04032).
- Ocampo, L., Aro, J. L., Evangelista, S. S., Maturan, F., Yamagishi, K., Mamhot, D., Mamhot, D. F., & Quinones, R. (2022). Research productivity for augmenting the innovation potential of higher ~ education institutions: An interpretive structural modeling approach and MICMAC analysis. *Journal of Open Innovation: Technology, Market, and Complexity*, 8(3), 148.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879–903. doi: [10.1037/0021-9010.88.5.879](https://doi.org/10.1037/0021-9010.88.5.879).
- Ponizovskiy, V., Ardag, M., Grigoryan, L., Boyd, R., Dobewall, H., & Holtz, P. (2020). Development and validation of the personal values dictionary: A theory-driven tool for investigating references to basic human values in text. *European Journal of Personality*, 34(5), 885–902. doi: [10.1002/per.2294](https://doi.org/10.1002/per.2294).
- Purc, E., & Lagun, M. (2019). Personal values and innovative behavior of employees. *Frontiers in Psychology*, 10, 865. doi: [10.3389/fpsyg.2019.00865](https://doi.org/10.3389/fpsyg.2019.00865).
- Rickaby, M. A., Glass, J., & Fernie, S. (2020). Conceptualizing the relationship between personal values and sustainability—A TMO case study. *Administrative Sciences*, 10(1), 15. doi: [10.3390/admsci10010015](https://doi.org/10.3390/admsci10010015).
- Schwartz, S. H. (1992). Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. *Advances in Experimental Social Psychology*, 25(C), 1–65. doi: [10.1016/S0065-2601\(08\)60281-6](https://doi.org/10.1016/S0065-2601(08)60281-6).
- Schwartz, S. H. (2007). Basic human values: Theory, measurement, and applications. *Revue Française de Sociologie*, 47(4), 929.
- Setia, M. S. (2016). Methodology series module 3: Cross-sectional studies. *Indian Journal of Dermatology*, 61(3), 261–264. doi: [10.4103/0019-5154.182410](https://doi.org/10.4103/0019-5154.182410).
- Sousa, C. M. P., Coelho, F., & Guillaumon-Saorin, E. (2012). Personal Values, autonomy, and self-efficacy: Evidence from frontline service employees. *International Journal of Selection and Assessment*, 20(2), 159–170. doi: [10.1111/j.1468-2389.2012.00589.x](https://doi.org/10.1111/j.1468-2389.2012.00589.x).
- Taber, K. S. (2018). The use of cronbach's alpha when developing and reporting research instruments in science education. *Research in Science Education*, 48(6), 1273–1296. doi: [10.1007/s11165-016-9602-2](https://doi.org/10.1007/s11165-016-9602-2).
- TCU (2019). *Handbook for Standards and Guidelines for University Education in Tanzania*, 3rd ed., The Tanzania Commission for Universities, Dar es Salaam.
- Tep, P., Maneewan, S., Chuathong, S., & Easter, M. A. (2021). The relationship between human values and creative ideation among undergraduate students: The role of creative self-efficacy. *Cogent Psychology*, 8(1), 1885575. doi: [10.1080/23311908.2021.1885575](https://doi.org/10.1080/23311908.2021.1885575).
- Wajid, U., & Jami, H. (2020). Research self-efficacy among students: Role of metacognitive awareness of reading strategies, research anxiety, and attitude towards research. *Pakistan Journal of Psychological Research*, 35(35), 271–293. doi: [10.33824/PJPR.2020.35.2.15](https://doi.org/10.33824/PJPR.2020.35.2.15).
- Wood, R., & Bandura, A. (1989). Social cognitive theory of organizational management. *Academy of Management Review*, 14(3), 361–384. doi: [10.5465/amr.1989.4279067](https://doi.org/10.5465/amr.1989.4279067).
- Yamane, T. (1967), *Statistics: An Introductory Analysis*, 2nd ed., Harper & Row, New York.

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