The Essentials for a leader in the VUCA world: a supervisee perspective

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ABSTRACT

Best of the leaders are the one that nurture the talent and lead the people to success. Many studies are conducted on the qualities a leader shall possess. In this paper, we study the perspective of the supervisee, i.e., what qualities the supervisee looks forward to in a manager leader. We have conducted qualitative exploratory research in a phased manner. The phases are literature review, personal interviews, extraction of leadership traits, data collection, data analysis, conference presentation, and paper writing. The sensitivity of the data is studied with demographics using required statistical methods. The findings suggested that efficient delegation of work and authority is the most sought-after leadership trait from supervisees in their manager leader. The research provides a detailed analysis of leadership traits expected by the supervisees in their manager leaders. The study can help in bridging the gap between leader managers and supervisees. The research can be effectively used to develop a healthy leadership ecosystem where supervisees look up to their leaders in a highly positive means.

Keywords: leadership, leadership qualities, supervisee perspective,

1. Introduction and Literature review

In today's rapidly changing and complex business landscape, leaders face unprecedented challenges that demand a new set of skills and competencies. The VUCA world, characterized by volatility, uncertainty, complexity, and ambiguity, presents a dynamic environment that requires leaders to adapt, innovate, and navigate through constant disruptions. As organizations strive to thrive in this unpredictable landscape, understanding the perspectives of those who work closely with leaders becomes crucial. This research paper focuses on the essentials for a leader in the VUCA world from the unique standpoint of supervisees. Ultimately, this research paper aims to contribute to the existing body of knowledge on leadership by offering a fresh and insightful perspective from the supervisee's point of view. It emphasizes the importance of incorporating the supervisee perspective into leadership theory, practice, and development, highlighting the essential qualities and practices that leaders need to navigate successfully in the VUCA world.

There are many studies that are published on essential traits of leadership. However, there are few studies that explain the supervisee expectations from their manager leaders. It is obvious to understand that the expectations from supervises from momager leader change with respect to time as the manpower dynamics keep on changing with respect to time in terms of thought process etc. In this paper we study the perspective of a supervisee i.e., what is their expectation from the leader manager and out of defined traits of leadership which of them are more important comparatively? The study conducted in this paper involved various phases. In phase one necessary literature review is conducted and some essential leadership traits are extracted for manager leaders. In phase two personal interviews are conducted with the supervisees and expected leadership traits are extracted once again. The intersecting traits of leadership from phase one and two are measures using a questionnaire through Likert scale of

agreement in Phase 3. 200 responses are recorded from supervisees of different organizations in phase 4. These responses are coded for statistical analysis and the analysis is conducted using MS Excel and R in phase 5. The necessary hypothesis is developed and results are presented.

A debatable statement from long time remained, "the leaders are born and cannot be made". Bennis (1984) has mentioned that there are three qualities in a leader that are perceived by the employees, and they are direction and vision, trustworthiness, and optimism. The author has travelled to various countries and studied leadership traits across cultures. Frazier and Reintzell (1996) studied the leadership training programmed at Baltimore police department and claimed that the elements deemed essential to the police leadership process can be imparted successfully. Lawrence (2013) has found out that HR and talent management professionals can help their organizations succeed in today's VUCA environment by developing leaders who can counter volatility, uncertainty, complexity, and ambiguity with vision, understanding, clarity, and agility. In continuation, Barling (2014) studied the role of social, family and non-familial influences on the development of leadership skills. Her research is focused on high quality leadership. This shows that leadership is also dependent on exposure of life in early stages. Leadership is witnessed in all endeavors of human beings such as political leaders, corporate leaders etc. Bennett (2014) has mentioned that VUCA is an acronym that has recently found its way into the business lexicon. It is shown that We show how leaders can appreciate the differences among each of these challenging situations to properly allocate scarce resources to preserve and enhance organizational performance. Sarkar (2016) identified the success factors in the VUCA world and listed them as Firm's agility to respond speedily, Strength of collaborative networks, along-with innovation and ethical practices. Further, she connected these factors with the different leadership styles listed as transformational leadership, servant leadership and authentic leadership. Chawla (2018) it is identified that both the leadership styles, i.e., transformational and resonant significantly impacted the learning organization in VUCA landscape. However, the impact on resonant leadership is higher than that of transformational leadership style to thrive well in VUCA world. Schoemaker (2018) he said that the world in which today's businesses operate has become not only riskier but also more volatile, uncertain, complex, and ambiguous (VUCA). Organizations that hew too closely to traditional ways of operating will be hampered in their ability to succeed. In contrast, those that focus on new product and process developments coupled with business model innovation will leverage their dynamic capabilities. An essential overlay is entrepreneurial leadership from top management teams. Strong dynamic capabilities are impossible without it. Padmaja (2019) it is identified that business leaders who stay focused on their mission and values and have the courage to deploy bold strategies building on their strengths will be the winners. Those who abandon core values or lock themselves into fixed positions and fail to adapt will wind up the losers.

Hameed (2020) identified that Global Leadership competencies which are considered essential for a VUCA world are not inherent in the Generation Z. The paper contributes to academics and industry practitioners by presenting findings that are exclusive to the Generation Z cohort. This facilitates the formulation of strategies that are conducive in industries for the induction and training of the Generation Z. Breninger (2021) it is suggested here that for leading successfully in the digital VUCA a fundamental transformation of individual minds is necessary, due to the novel bio-cultural paradoxes posed by it. Such 'VUCA resilient' minds are claimed to emerge from a specific perceptual architecture built on new, functional connections set up via the integration of cultural otherness into highly interlinked perception, cognition, affect and action systems. Chitranshi (2021) it is revealed that the dependability is on all the four factors for the VUCA business environment and hence the need is to practice the same in the organisation.

Ciceklioglu (2020) it is revealed that when the relevant national and international literature is examined, it is observed that very few studies have been carried out on the VUCA phenomenon. Today, most researchers, practitioners, and professionals express that VUCA is a permanent phenomenon and its impact will increase day by day. Raghuramapatruni & Kosuri (2017) in this study it is said that it's becoming increasingly difficult to keep all the balls in the air. Companies big and small face a host of new challenges. The world is becoming more complex and volatile, and these conditions make even short-term decisions difficult. Transparent markets and an ever-faster pace create high workplace pressures. In this context, the current paper discusses the straits to success in a VUCA environment. Brodie (2019) this research addresses the lived experience of social entrepreneurs leading in a VUCA environment. The findings include (a) the strategies they employ, (b) the challenges they face on their journey, (c) how they measure their success, (d) the role of technology in their day-today leadership, and (e) recommendations for future social entrepreneur leaders. Nowacka & Rzemieniak (2021) it is shown that leaders are more or less aware of the existence of the VUCA world. As key competencies, they mention the ability to develop and adapt digital technologies to the needs of the organization or the ability to flexibly switch thinking between various problems. Kucukozyigit (2020) in this study, shows that retired military officers think statistically significantly different than those on active duty. The results of this research also demonstrate a need to create a better understanding of the VUCA dynamics in the military and the findings can be used as the foundation for further research in the area of VUCA leadership skills.

Mwinga & Mwenje (2020) the study found that change leadership practice was common in ZSE companies during the studied COVID-19 period and most change and change leadership interventions were very feasible. It also found that the interventions were largely inevitable and significantly effective and that change leadership is crucial to business survival in a VUCA environment.

2. Research Methodology

In this paper first, the exploratory research is conducted with the purpose of identifying the variables (traits) that are considered by supervises a good leader should possess. Exploratory research is conducted (i) using a literature review and, (ii) personal interview method. The collective variables extracted from both methods are measured using various scale items. The personal interviews are conducted with supervisees of different age groups from different industries. The secondary data is collected using various literature sources. The following variables (traits) are identified on completion of exploratory research that supervises feel, a good leader must possess.

S. No	Variables		Traits
1	Personal Qualities		Empathy Patience Resilience Self-awareness Integrity Optimism Passion Enthusiastic
2	Communication a Influence	nd	Good communicator (active listening), Influencer

3	Interpersonal Skills	Democratic, Fair, Friendly, balanced between being friendly and being formal, Understanding, Gratitude
4	Decision-Making and Action	Decisiveness (courage, risk-taker), Delegation, Problem-solving attitude
5	Collaborative Leadership	Accountability, Collaboration, Flexibility, Focus, Growth mindset, Eager to learn, Innovation

In next stage a questionnaire is developed for measuring extracted traits on a five-point Likert scale of agreement. Over 150 responses are collected from the supervisees working in different sectors, age groups, gender and frequency of interaction with the manager leader or supervisor. The data is recorded and analysed using MS Excel and R. For statistical analysis descriptive statistics, comparison of means, independent sample t-test, analysis of variance and multiple linear regression is used,

Following alternate hypothesis is developed and tested using above mentioned tests.

 H_{10} : Gender has a significant impact on the leadership traits rating.

H₁₁: Age has a significant impact on leadership traits rating.

H₁₂: frequency of meeting has a significant impact on leadership traits rating.

3. Data Analysis and Interpretation

The data analysis is performed on the responses to achieve the set objectives. First the distribution of the demographics is studied. Age is one of the important aspects of the study as with the age and experience the expectation from the leader change significantly. Following table 1.1, shows the distribution of the age.

Table – 1.1

Distribution of Age

Age in Years	Percentage
18-25 years	27%
25-35 years	26%
35-45 years	38%
more than 45 years	10%

The highest representation is of the employees between 35 - 45 years followed by the employees of 18.- 25 years and 15 - 35 years.

Further in the distribution of demographics, comes Gender. Gender is again an important part of the demographic distribution as different gender has different potential and nature of a leader. Following table 1.2, shows the distribution of gender.

Table- 1.2

Distribution of Gender

Gender	Percentage
Male	47.5%
Female	52.5%

The highest representation is of the Females with 52.5 % followed by the males with 47.5%.

Table- 1.3

How often you have to interact with your supervisor?	Percentage
Several times a day	25%
once or twice a day	23%
once in a week	14%
few times in a week	24.5%
rarely	13.5%

Further the traits identified from exploratory study are measured on Likert scale of agreement. The supervises are asked about their experience with the supervisors on the particular trait. Following table presents the mean analysis of the responses.

Table – 2.1
Opinion on supervisors

My supervisor	Average Score
Considers everyone's opinion in team before making a decision	4.35
Always motivates me and team to deliver its best	4.27
Is an attractive personality	3.61
Influences me through his lifestyle.	3.55
Influences me through his personality	3.60
Is fair towards the team	3.74
Balanced between being friendly and being formal	3.85
Is enthusiastic about the goals to be achieved	3.86
Is having high integrity	3.88
Is a Good communicator	3.88
Makes bold decisions	3.88
Delegates authority	3.85
Shows gratitude towards the team	3.93
Has empathy towards the team	3.92

Feels accountable towards the team	4.05
Promotes collaborative team work	3.91
Creates a flexible work environment	3.83
Is focused towards the company goals	3.81
has a mindset for growth	3.84
Is a learner himself/herself	3.88
Innovates	3.90
Highly Optimistic	4.00
Is Passionate about his/her job	3.92
always keeps patience	3.90
has a problem-solving attitude	3.96
Is self-aware	3.97

When it comes to decision making and taking opinion of others, the people are in high agreement with a mean score of 4.35. This shows that most of the supervisors take the team into consideration before making a decision. It is observed that almost every supervisor motivates its team so that they all perform on their best potential, the people are in high agreement with a mean score of 4.27. The people are not in high agreement that their supervisor has an attractive personality as the mean score is as low as 3.61.

When it's about supervisor's lifestyle, the employees under them get influenced with their lifestyle. Therefore, with a mean score of 3.55 it shows that people are not that much in support to this statement. The respondents are not in very high agreement that their supervisor can influence them with their personality with a mean score of 3.6. When it's about supervisor's being fair towards the team, the people have a moderate reaction towards this with a mean score of 3.74. When it comes to supervisor's maintaining a balance between being friendly or being formal which is a very crucial quality that a supervisor must poses. On this the people have given a moderate reaction with a mean score of 3.85. The respondents have a normal reaction when it comes to the supervisor's enthusiastic behaviour about the goals to be achieved in respect to this statement the respondents have a reaction with mean score of 3.86. When it comes to supervisor's having high integrity, having good communication skills & have a bold decision-making skill, respondents have a similar impression for all of them with a mean score of 3.88 respectively.

Delegating authority is a very crucial aspect or characteristic of any supervisor or mentors. On this statement people have again a moderate impression with a mean score of 3.85. It is observed that supervisor's show gratitude towards its team and respondents have a very moderate rection with a mean score of 3.93. Then it's about supervisor's having empathy towards the team. Comparatively, respondents have better reaction with a mean score of 3.92.

Now, when it comes to supervisor's feeling accountability towards the team has a very high agreement from the respondent's end with a mean score of 4.05. When it's about a supervisor who promotes collaborating team work which also acts as a motivating factor for

the entire team, on this respondent have a better reaction with a mean score of 3.91. Workplace environment is again a very vital aspect of any organisation and a supervisor who creates a flexible working environment, respondents have a moderate agreement on this with a mean score of 3.83.

Accomplishment of organisational goal is the motive for which the employees work for, a supervisor who is focused towards the organisational goal, to this, respondents have neutral agreement with a mean score of 3.81. Organisational growth is again a vital aspect of any organisation, growth & survival is something for which a company exist. The respondents gave a moderate agreement with a mean score of 3.84.

A supervisor who is learner himself/herself is a very attractive quality as supervisees seek and learn a lot from there supervisors, the people had a moderate agreement with a mean score of 3.88. Innovation is a crucial part of any organisation therefore a supervisor must possess innovation skills, in respect to this statement people have a better agreement on this with a mean score of 3.9. When it comes to a supervisor who is highly optimistic in nature this has a high agreement with a mean score of 4.00.

One should be always passionate towards his/her job as this keep them more motivated towards their goals and task, so a supervisor being passionate towards his/her job is being moderately agreed by the people with a mean score of 3.92. Patience is one of the keys to success, therefore a supervisor's patience is tested always and this is also agreed by the people with a mean score of 3.90.

When it comes to a supervisor's problem-solving attitude, the respondents have a positive agreement with a mean score of 3.96. Last but not the least, supervisor's having self-awareness in behaviour, this statement is also in a high moderate agreement with a mean score of 3.97.

Further the respondents are asked to rank the top 5 traits they think their leader shall possess. The respondents are given with the list of all traits extracted from exploratory analysis. The ranking scale considers 1 being the highest and 5 being the lowest rank. Following table presents the results.

Table – 2.2

Ranking of leadership traits

Leadership traits / Rank Scores	1	2	3	4	5	Composite Score
Democratic	65	28	22	26	59	586
Motivator	51	38	26	28	57	602
Attractive personality	57	40	32	24	47	564
Influencer	67	39	20	31	43	544
Fair	50	38	34	32	46	586
Understanding	37	49	29	40	45	607
Balanced between being friendly and being formal	36	46	33	35	50	617
Enthusiastic	40	41	31	37	51	618
Integrity	38	40	44	36	42	604
Good communicator	43	45	34	29	49	596
Decisiveness	36	42	45	43	34	597
Delegation	33	54	47	34	32	578
Gratitude	34	47	42	42	35	597

Empathy	36	46	32	46	40	608
Accountability	41	40	23	46	50	624
Collaboration	43	41	30	38	48	607
Flexibility	33	43	37	40	47	625
Focus	38	48	36	36	42	596
Growth mindset	38	48	39	35	40	591
Eager to learn	43	46	33	35	43	589
Innovation	35	50	34	36	45	606
Passion	38	51	29	49	33	588
Patience	40	45	33	46	36	593
Problem solving attitude	45	42	25	41	47	603
Self-awareness	44	37	27	30	62	629

It is found that with the lowest ranking score of 544, "being an influencer", is the most important trait of a leader as it is ranked highest. Followed by a leader being attractive with a ranking score of 564 and delegation with a ranking score of 578.

This may be due to the cause because the supervises look up-to their manager leaders in their professional careers. Hence, it is very important for a manager leader to influence the people from his/her overall dynamics. Further it is also important that a manager leader carries an attractive personality as an attractive personality in a professional environment reflects a holistic development of individual. The third important factor is that a leader shall delegate the work and authority to the supervises. This is related to the work ownership and trust. Supervisees also enjoy honing their leadership skills when they are delegated the authority. Baker et. al., (2022) mentioned that great leaders can seize the opportunity of "The Great Reset" by effective delegation. They also mention that the effective delegation engages the heart and mind of the people.

The lowest ranked traits of a leader are self-awareness with a rank score of 629, flexibility and accountability with respective scores of 625 and 624. This may be due to the fact the in the era of IT based reporting and monitoring management structure, supervises are clear about their KRAs and they understand their accountability and flexibility.

The mean scores are further checked for sensitivity and significance w.r.t demographics in section 3.2.

3.1 Regression Model

Further, the supervisees are asked to rate their manager leaders at a scale of 1 to 10. Where 1, is considered as the highest rating, it is evident that the overall rating of a leader manager is dependent on the traits he/she possesses. Hence, overall rating is taken as dependent variable and traits a manager leader possesses are considered as independent variables. Simple linear regression model is used for studying the impact of leadership traits on overall rating. The regression model suggested that being democratic, delegation and gratitude are the significant variables that are impacting the overall rating of manager leader significantly as the p-value for all these independent variables is less than 0.05. The corrected regression model is presented as under.

Table – 2.3 Regression model output

Coefficients	Estimate	Std. Error	t-value	Pr(> t
Coefficient	6.1213	0.7604	8.050	7.83e-14**
Democratic	0.1051	0.1454	0.723	0.471
Delegation	0.7361	0.1722	4.274	3.00e-05***
Gratitude	0.2330	0.1656	1.407	0.0161*

Signif. codes: 0 '*** 0.001 '** 0.01 '* 0.05 '.' 0.1 ' 1

Multiple R-squared: 0.2524, Adjusted R-squared: 0.24

It be observed from the regression model that 25% variation in the leadership rating isn caused by being democratic, delegation style and gratitude. The regression equation of the model can be given by

leadership rating = $6.1213 + 0.1051 \times Democratic + 0.7361 \times Delegation + 0.2330 \times gratitude ... (1)$

It can be observed that only delegation of work and authority has a highest positive impact on the leadership rating followed by being full of gratitude and being democratic.

3.2 Hypothesis testing

It is found that attractive personality, fairness towards the team, having integrity, good communication, mindset for growth and self-learner, self-awareness are the leadership traits that have a significant impact of gender. The p-value for independent sample t-test for all these variables is less than 0.05. further, for all the significant traits male supervisees are in higher agreement (as expressed in table 2.4). Hence null hypothesis H_{00} is rejected for these traits and not -rejected for the remaining traits.

Table – 2.4 Significant impact of Gender

	Avera	ige Score
My supervisor	Male	Female
Is an attractive personality	4.16	3.666
Is fair towards the team	4.18	3.70
Is having high integrity	4.22	3.84
Is a Good communicator	4.16	3.64
has a mindset for growth	4.25	3.72
Is a learner himself/herself	4.16	3.66
Is self-aware	4.25	3.88

Further the null hypothesis H_{01} is tested using analysis of variance. None of the observed leadership traits are having a significant impact of age. As the p-value for analysis of variance is above 0.05 for all observed leadership traits. Hence null hypothesis H_{01} is not rejected for any of the leadership traits.

The null hypothesis H_{03} is tested using analysis of variance. It is found that being good communicator and delegation of work and authority is sensitive w.r.t. frequency of meeting with the supervisor. Hence the null hypothesis is rejected for these two traits and not rejected for rest of the traits. Following mean table describes the comparison

Table – 2.4 Significant impact of frequency of meeting

	Average score					
My supervisor	Several times a	Once or twice	Once in a	Few times	Rarely	
	day	a day week		a week	Kareiy	
Is a good communicator	4.14	3.52	4.10	3.71	4.07	
Delegates the work and authority	3.70	3.52	4.03	4.10	4.00	

It can be observed that the agreement is significantly higher for the supervisees who meet their leader manager several times a day. Further the agreement is highest for the supervisees in terms of delegation of work and authority who meet the leader managers few times a week.

1. Findings and Suggestions

In this study we found that; A high agreement is observed on the statement that the managers leaders consider everyone's opinion before making a decision. The most important trait identified by the supervises that a leader shall possess is being an influencer. However, the supervises didn't agree highly that their leader influences them with a mean low score of 3.57 on a five-point Likert scale. The supervises ranked self-awareness of the leader as lowest followed by accountability and flexibility. 25% impact in leadership rating is caused collectively by a leader manager being democratic, being able to delegate effectively and being full of gratitude.

It is suggested that the manager leader shall practice of being democratic i.e., considering opinion of the team before making a decision, involving the team in ownership by efficient delegation of work and authority and being full of gratitude towards the supervisees. Attractive personality, fairness towards the team, having integrity, good communication, mindset for growth and self-learner, self-awareness are gender sensitive leadership traits i.e. male and female supervisees observe these traits differently. None of the leadership traits are sensitive to age. The frequency of meeting has a significant impact on two leadership traits i.e. delegation of work & authority and being a good communicator.

6. References

- 1. Bennis, W. (1984). *The four competencies of leadership*. Training and development journal.
- 2. Frazier, T. C., & Reintzell, J. F. (1996). Good Leaders Are Born, Not Made: Fact or Fallacy? *Police Chief*, *1*, 37–40.
- 3. Horney N., Passmore B., O'Shea T. (2010). Leadership agility: A business imperative for a VUCA world. HR People & Strategy, 33(4), 34-42.
- 4. Barling, J. (2014). Are Leaders Born or Made? In *The Science of Leadership* (pp. 122–146). Oxford University Press. http://dx.doi.org/10.1093/acprof:oso/9780199757015.003.0005.

- 5. Barling, J. (2014). Are Leaders Born or Made? In *The Science of Leadership* (pp. 122–146). Oxford University Press. http://dx.doi.org/10.1093/acprof:oso/9780199757015.003.0005
- 6. Sarkar, A. (2016). We live in a VUCA World: the importance of responsible leadership. *Development and Learning in Organizations: An International Journal*, *3*, 9–12. https://doi.org/10.1108/dlo-07-2015-0062.
- 7. Chawla, S., Lenka, U. (2018). Leadership in VUCA Environment. In: Dhir, S., Sushil (eds) Flexible Strategies in VUCA Markets. Flexible Systems Management. Springer, Singapore. https://doi.org/10.1007/978-981-10-8926-8_16
- 8. Edward L. Baker, Susan A. Murphy, (2022). A Core Leadership Skill. Journal of Public Health Management and Practice 28(4): pp. 430-432, DOI: 10.1097/PHH.00000000001545
- 9. Schoemaker, P. J. H., Heaton, S., & Teece, D. (2018). Innovation, Dynamic Capabilities, and Leadership. California Management Review, 61(1), 15–42. https://doi.org/10.1177/0008125618790246
- 10. Hameed S., Sharma V. (2020) A Study on Leadership Competencies of the Generation Z in a VUCA World, International Journal of Advanced Science and Technology, 29(9s), pp. 2379 2393 10.13140/RG.2.2.31459.78883
- 11. Breninger B (2021), Creating Leadership minds for the digital VUCA world sculpting functional perceptual architectures via cultural expertise, European Journal of Crosscultural Competence and Management, 5(3), pp. 220 235. https://doi.org/10.1504/EJCCM.2021.116876
- 12. Frémeaux, S., & Pavageau, B. (2022). Meaningful Leadership: How Can Leaders Contribute to Meaningful Work? Journal of Management Inquiry, 31(1), 54–66. https://doi.org/10.1177/1056492619897126
- 13. Nathan Bennett, G. James Lemoine. (2014). what a difference a word makes: Understanding threats to performance in a VUCA world, Business Horizons, Volume 57, Issue 3, Pages 311-317, ISSN 0007-6813, https://doi.org/10.1016/j.bushor.2014.01.001.
- 14. Deepika and Chitranshi, J. (2021), "Leader readiness of Gen Z in VUCA business environment", *Foresight*, Vol. 23 No. 2, pp. 154-171. https://doi.org/10.1108/FS-05-2020-0048
- 15. Ciceklioglu, H. (2020), *VUCA Concept and Leadership*, Management & Strategy (pp.229-244).
- Raghuramapatruni, R & Kosuri, S. (2017), The Straits of Success in a VUCA World, IOSR Journal of Business and Management (IOSR-JBM), e-ISSN: 2278-487X, p-ISSN: 2319-7668, PP 16-22.
- 17. Brodie, V. (2019), Disrupted leadership: strategies and practices of leaders in a VUCA world, Theses, and Dissertations 1048. DOI: https://digitalcommons.pepperdine.edu/etd/1048.
- 18. Kumar, A. (2020), *Neo Leaders of VUCA World*, NATIONAL INSTITUTE OF FASHION TECHNOLOGY, Vol-6 Issue-1 2020, IJARIIE-ISSN(O)-2395-4396.
- 19. Nowacka, A., Rzemieniak, M. *The Impact of the VUCA Environment on the Digital Competences of Managers in the Power Industry*. Energies 2022, 15, 185. https://doi.org/10.3390/en15010185.
- 20. Kucukozyigit, A. (2020), A Quest to identify the emerging Leadership skills in VUCA World and Investigation of their applications in various Organizational Levels and security environments. Doctor of Philosophy (Ph.D.), Dissertation, Engineering Management & Systems Engineering, Old Dominion University, DOI: 10.25777/y7ah-4b43.

21. Mwinga, E. & Mwenje, J. (2021), Criticality of change leadership to business survival in a VUCA environment: A case study of Zimbabwe Stock Exchange-listed companies in the COVID-19-affected trading period of March - December 2020. African Journal of Marketing Management, Vol. 14(1), pp. 21-34, January-June 2022, DOI: 10.5897/AJMM2021.0686.