Environmental Sustainability, Value Re-Orientation as a Panacea to Gender-Based Violence and Culture of Silence Among Adolescent Girls

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Abstract

Gender-based violence (GBV) is an alarming global threat. It has repercussions on victims and their offspring. The detrimental African cultural customs that have supported gender-based violence are a deeply rooted problem that requires sensitive and urgent attention. Therefore, this study examined the perceived effects of environmental sustainability and value re-orientation on GBV. Data were collected from 420 respondents who were randomly selected from Osun State, Nigeria. Descriptive statistics and regression analysis were used to analyse the data. Results show that the girl child is highly vulnerable to GBV, while the urban-rural divide and religious demographics influence the rate of GBV. Environmental stressors, power imbalances, gender inequalities, and social norms were identified as major causes of GBV that result in physical, reproductive, and mental health consequences for victims. Promoting environmental sustainability and value re-orientation emerges as a potential strategy to curb GBV, while equitable resource management and women's economic empowerment were identified as preventive measures. Regression analysis highlights the predictive effects of environmental sustainability (beta = 0.344, p < .001) and value reorientation (beta = 0.384, p < .001) on GBV, underscoring the need for comprehensive interventions. Preventing GBV requires addressing the underlying causes, which include socioeconomic, cultural, and environmental issues. The fundamental causes of GBV, which include socioeconomic, cultural, and environmental issues, must be addressed to prevent it. For victims of gender-based violence, the Osun State Government should collaborate with non-governmental organizations and religious groups to increase their access to support services. Community leaders should implement community-based interventions, such as locking up or imprisoning those who have committed any type of GBV within their community. The State Ministry of Youth and Women Affairs should develop a value reorientation program that challenges social norms and the prevailing culture of silence.

1. INTRODUCTION

Globally, environmental degradation, increased competition over scarce resources, and cultural values are increasing gender-based violence among

females. Nigeria alone recorded over 24,000 cases of Gender-based violence (GBV) nationwide in one month, with Lagos, a megacity of Nigeria, alone receiving 5624 cases in one year. The cases reported include sexual, emotional, physical, or economic abuse. GBV is not limited to a specific gender, race, colour, group of people, culture, socio-economic status, or religion (Ochani et al., 2024). It affects everyone; however, women and girls are most vulnerable and disproportionately affected (John et al., 2020). The rate at which cases of domestic violence are increasing in Nigerian society can be attributed to the environmental change, degradation, cultural beliefs, and norms that have made women a subject of violence and domination in marriage. Women are often sexually assaulted, emotionally abused, and physically violated. Gender-based violence can have lasting effects on girls' physical and mental health. Addressing gender-based violence and promoting gender equality are fundamental to environmental work that contributes meaningfully to SDG 5, which aims to promote gender equality (Rapinyana & Baratedi, 2023).

Environmental degradation can exacerbate existing gender inequalities, making it more difficult for marginalized female gender to access land, economic resources, and services that could help to address the issue of violence and abuse. Environmental degradation manifests in various forms, including land pollution, deforestation, air pollution, water pollution, and the loss of biodiversity. These can affect women in various ways; for example, environmental degradation and pollution can have a negative impact on the health and well-being of girls, which can in turn increase their vulnerability to violence. Girls are also more vulnerable to the impact of climate change, which can lead to food and water shortages, displacement, loss of livelihoods, and more dependence on the opposite gender who may exploit the opportunity to abuse them sexually and emotionally. Moreover, the aftermath may create a culture of silence and fear, where women may be less likely to speak out against abuse or violence they receive because they lack the resources needed to support themselves (Rezwana & Pain, 2021).

Additionally, it is unfortunate that in some African cultures, some cultural beliefs and norms keep women from realizing their full potential. One such belief is that women are inferior to men and should not be given equal opportunities in education, career, leadership positions, land, and other inheritances like men. This has led to a lack of investment in women's education and development, resulting in limited access to resources and opportunities, which can put them on the same pedestal as the male gender. Moreover, some cultural practices, such as early marriage and female genital mutilation, further perpetuate the marginalization of females and the violence against them (Mshweshwe, 2020).

1.1   Problem Statement

Globally, the rate of GBV is on the rise. Nigeria alone recorded 24,720 cases of GBV in one month—September 2023—with 975 vital cases, 1505 cases closed either at family, community, religious, or traditional levels, or the survivors themselves closed their cases due to fear, intimidation, cultural beliefs, and the silent culture in Africa. This menace is worrisome; the effects on individual victims and their children are unimaginable. It is time GBV is eliminated from our society for peace and the achievement of Agenda 2030. The harmful African cultural practices that have perpetuated gender-based violence are a deeply ingrained issue that needs to be addressed with urgency and sensitivity. It is time to break the cycle of violence and discrimination and embrace a culture of equality and respect. It is essential for African societies to challenge these harmful beliefs and traditions and strive towards creating a more equitable and just society for all. Addressing gender-based violence and promoting gender equality are fundamental for environmental work that meaningfully contributes to SDG 5 of promoting gender equality. It is on this premise that the study investigated gender-based violence and a culture of silence among adolescents in Osun State, Nigeria.

1.2   Research Questions

The following research questions are formulated to guide the thrust of the study:

a. What are the perceived causes of GBV among adolescents in Osun State, Nigeria?
b. What are the perceived effects of GBV among adolescents in Osun State, Nigeria?
c. What are the perceived impacts of promoting environmental sustainability and value re-orientation on GBV among adolescents in Osun State, Nigeria?

The study assessed Gender-Based Violence and a culture of silence among adolescents with the following specific objectives:

a. To identify the perceived causes of GBV among adolescents in Osun State, Nigeria.
b. To explore the perceived effects of GBV among adolescents in Osun State.
c. To find out the perceived impacts of promoting environmental sustainability and value re-orientation on GBV among adolescents in Osun State.
d. To examine the significant effect of promoting environmental sustainability and value re-orientation on GBV among adolescents.

The testable hypothesis of the study is "Environmental sustainability and value

re-orientation do not have a significant effect on GBV among adolescents in Osun State, Nigeria".

2. LITERATURE REVIEW

Gender-based violence (GBV) against adolescents refers to any harmful act that is carried out against the adolescents' will (Wei et al., 2023). This act is based on socially attributed differences between males and females within the context of a given society. It includes various forms of violence, emotional abuse, sexual harassment, physical abuse, financial abuse, human trafficking, and forced marriage. It is the most pervasive yet least visible human rights violation globally. It also includes the threat of violence, coercion, and deprivation of liberty, whether in public or private. Society is responsible mainly for GBV occurrence and prevalence as society has failed in its role of instilling the right values in children (Paudel, 2007). Our weak legal system, social stigmas, environmental degradation, bad cultural norms of gender inequality, and poor education system in Nigeria are responsible for GBV against adolescents.

The prevalence of GBV is staggering, with statistics indicating that one in three women worldwide has experienced physical or sexual violence in their lifetime (World Health Organization, 2021). However, these numbers likely underestimate the true extent of the problem due to underreporting and the silence culture that surrounds GBV. It can occur in various settings, including homes, workplaces, and public spaces. When violence persists and it is being normalized and taken with levity, it becomes a rampant act. Silence culture refers to a situation where people feel pressured or afraid to speak up, share their thoughts, or talk about important issues. It is like an unwritten rule in a group or community that requires people not to say anything that might make others uncomfortable or challenge the status quo. In a silent culture, problems, injustices, or concerns may be ignored or hushed up, making it difficult for people to address and solve them openly. This culture can make some individuals feel isolated and powerless, preventing important discussions from taking place. Breaking a silent culture often involves encouraging open communication and creating an environment where everyone's voice is heard and respected.

Azeez (2020) attributed the culture of silence among female folks regarding violence perpetrated against them to the effect of the socialization process in different cultures. The culture of silence has remained one of the major challenges militating against the effective handling of GBV. It is a phenomenon in which the victims of GBV often endure violence in silence due to fear, shame, or societal pressure. This silence culture not only allows GBV to persist but also perpetuates the cycle of abuse. Silence culture surrounding GBV has its roots in

historical gender inequalities and societal norms that have perpetuated patriarchal power structures. These norms often dictate that discussions about GBV should remain private, further reinforcing the culture of silence. It is believed that one gender is more relevant than the other and that cases of violence against the not-so-privileged gender should be taken with caution and silence. Issues involving the perpetuated patriarchal power should be looked away from as the victims suffer in silence (Mshelia, 2021).

One consequence of a silent culture is the unlawful appropriation of blame. A situation in which the victims are held responsible for the violence they suffered. This blame-shifting phenomenon is deeply embedded in societal attitudes, which many times prevents survivors from speaking out. The oppressed group, who are supposed to be supported, gets blamed for an act perpetrated against them. Silence culture thrives on fear and stigma, making it difficult for survivors to come forward and seek help. Fear of retaliation, judgment, or disbelief contributes to the perpetuation of GBV (Ikuteyijo et al., 2023). It can be said that a silent culture is one of the reasons gender-based violence still thrives in society. The marginalized group usually does not find the boldness to speak up as they are usually termed the "weak ones".

Cultural norms and traditions can also reinforce a silent culture. In some societies, discussing GBV openly is considered taboo, and victims are expected to endure the violence silently for the sake of family honour or community harmony. It is considered disrespectful and inappropriate for women to speak up about their struggles with gender-based violence. Most times, perpetrators of GBV are closer to the victims than one can imagine, and this also fuels the dangerous act of silence about it (Thelma, 2024).

Environmental degradation can exacerbate existing gender inequalities, making it more difficult for marginalized females' gender to access land, economic resources, and services that could help to address the issue of violence and abuse (Huyer et al., 2020). Environmental degradation manifests in various forms, including land pollution, deforestation, air pollution, water pollution, and the loss of biodiversity. These can affect women in various ways; for example, environmental degradation and pollution can have negative impacts on the health and well-being of girls, which can in turn increase their vulnerability to violence (Gwangndi et al., 2016). Girls are also more vulnerable to the impacts of climate change, which can lead to food and water shortages, displacement, loss of livelihoods, and more dependence on the opposite gender who may exploit the opportunity to abuse them sexually, emotionally, and otherwise. Moreover, the aftermath may create a culture of silence and fear, where women may be less likely to speak out against abuse or violence they receive because they lack the

needed resources to support themselves (Rezwana & Pain, 2021).

Values refer to enduring, often deeply ingrained beliefs and principles that guide an individual's attitudes, behaviours, and decisions. These beliefs and principles are considered important and serve as a framework for evaluating what is right or wrong, desirable, or undesirable, and meaningful or meaningless in various aspects of life. According to Enu and Esu (2011), values are basic beliefs and attitudes in a society, whether of individuals or groups, that are considered worthwhile and serve as a guide to choices and behaviors in our daily lives. Esu (2009) further defined values as ideals that guide or qualify your personal conduct, interaction with others, and involvement in your career. Values help to inform one on how he or she can conduct one's life in a meaningful way. Values can encompass a wide range of ideals, including moral, ethical, cultural, social, and personal beliefs. They play a fundamental role in shaping an individual's identity, influencing their priorities and informing their choices in both personal and societal contexts.

3.   METHODOLOGY

Study Design: This study explored gender-based violence and a culture of silence among adolescents in Osun State, Nigeria. The study used a descriptive research design.

Study Area: Osun State is one of the rural states in Southwest Nigeria. It is popularly known as a land of virtue. Cultural beliefs are deeply rooted in the daily lives of the people of the state. The state is known for its rich cultural heritage, which is evident in its arts, traditional festivals, music, and dance. The cultural practices of the people of Osun State are closely tied to their beliefs in the gods and goddesses, whom they consider to be their ancestors.

Population of the study: The population for this study consists of all females in Osun State, Nigeria.

Sample and Sampling Method: Given the sensitive nature of the subject of this study, a purposeful sampling technique was used to select 150 adolescents from each of the three federal senatorial districts in the State, making a total of 450 adolescents. However, only 420 questionnaires supplied with complete information were considered valid and usable for the study.

Research Instrument: The instrument used for the collection of data was "Gender-based Violence Among Adolescent Girls" (GBVAW).   The questionnaire consisted of four sections (A -D). Section A elicited responses on the demographic data of the respondents. Section B was based on the Causes of

gender-based violence among adolescents. Section C was based on the effect of the Culture of Silence, while Section D was based on mitigating gender-based violence among adolescents.

Validation of Instrument: The measurement instrument designed was assessed for three types of validity: face validity, content validity, and construct validity.

Reliability of Instrument: The reliability and internal consistency of the subscales were determined using Cronbach's alpha coefficient test. Data collection bias was minimized as only the researchers conducted focused group discussions and interviews with all respondents who could speak English and Yoruba. Three research assistants were engaged and trained to help administer the questionnaires.

Data Collection Procedure: The researchers, with the aid of two trained research assistants, visited each of the three senatorial districts in the state and administered the research instrument of the study on the selected sample. At least 50 adolescents from each of the three local government areas in each of the senatorial districts were requested to fill the research questionnaire. The responses were collected immediately after the filling was completed. Prior to data collection, participants' consent was sought to include them in the study, and the study's objectives were shared. In addition, adequate assurance was given about the confidentiality of the responses provided.

Data Analysis: Descriptive statistics (mean and percentage) and regression analysis were used to analyse the data.

Ethical Consideration: This research followed the ethical consideration guidelines for conducting research in Osun State University. The consent of the respondents was also sought before the data collection.

4. RESULTS

4.1 Demographic Characteristics of the Participants

This study comprised 420 participants selected from the three senatorial districts in Osun State. Given the sensitive nature of this study, only participants who voluntarily chose to participate were included. They included 150 respondents (35.7%) from the Osun-East, 149 (35.5%) from Osun-West, and 121 (28.8%) from Osun-Central. The majority of the respondents (91.9%) were females, and the remaining ones (8.1%) were males. A greater percentage of the participants (56.9%) fell in the age category of 13-15 years old, followed by those within 16-19 years old (41.7%), and only six of them (1.4%) were in the 20 years old and above. Most of the participants (67.1%) were living in urban residential areas,

followed by the rural areas (25.2%), and the least was those from the semi-urban areas (7.6%).

Majority of the participants were of Christian faith (62.1%). This is followed by the Muslim participants (34.0%), and the remaining ones (3.8%) were of traditional faith. In terms of the accommodation types where the participants resided, a greater number (25.2%) lived in a room and a parlour apartment, followed by those who lived in 2-bedroom flats (20.2%), then those who lived in single rooms (20.0%), those who lived in duplex (18.3%), and the least were those who resided in mini flats (16.2%). Almost two-third of the participants (59.3%) were living in their personally owned buildings, while the remaining ones (40.7%) lived in a rented apartment. Majority of the participants (77.1%) were secondary school education certificate holders, followed by primary school certificate holders (22.2%), then those without any formal education (1.7%), and the least were those who had tertiary education (1.0%). Lastly, almost half of the respondents (48.1%) agreed that they had previously experienced gender-based violence, while the remaining ones (51.9%) responded that they had not. Table 1 presents details of the demographic variables and their associated responses.

Table 1. Demographic Variables of Respondents (n = 420)

S/No	Variables		Frequency	Percent
	Senatorial Zone: Osun-East		150	35.7
		Osun-West	149	35.5
		Osun-Central	121	28.8
2.	Gender:	Male	34	8.1
		Female	386	91.9
3.	Age:	13-15years	239	56.9
		16-19years	175	41.7
		20 years & above	06	1.4
4.	Location of Residence: Rural		106	25.2
		Semi-urban	32	7.6
		Urban	282	67.1
5.	Religious Belief: Christianity		261	62.1
		Islam	143	34.0
		Traditional	16	3.8
6.	Accommodation Type: Single Room		84	20.0
		A room and a parlour	106	25.2
		Mini Flat	68	16.2
		2-bedroom Flat	85	20.2
		Duplex	77	18.3
7.	Nature of Accommodation: Rented		171	40.7

	Personal Building	249	59.3
8.	Level of Education: No Formal Education	07	1.7
	Primary	85	20.2
	Secondary	324	77.1
	Tertiary Education	04	1.0
9.	Experience with GBV: Yes	202	48.1
	No	218	51.9

4.2   Data Analysis for Research Questions

Qus.1: What are the perceived causes of GBV among adolescents in Osun State, Nigeria?

Table 2. Perceived Causes of GBV among Adolescents

S/N	Variables	Disagreed		Agreed		Mean	Std. Dev
		N	%	N	%		
1.	Competition over dwindling natural resources like water and arable land can lead to conflicts within families resulting in Gender-based violence (GBV)	73	17.4	347	82.6	3.03	0.84
2.	Environmental degradation, like climate change, can force people to become internally displaced. In such situations, the vulnerability to GBV often increases among adolescents.	117	27.9	303	72.1	2.74	0.92
3.	Social norms and peer pressure to conform to certain behaviours can influence GBV	154	36.7	266	63.4	2.98	0.87
4.	A culture of silence discourages victims of GBV from reporting it, allowing it to persist	101	24.0	319	76.0	2.92	0.93
5.	Breakdown of social order, displacement, and stress following a natural disaster can increase the vulnerability of adolescents to sexual harassment and assaults	120	28.6	303	71.4	2.89	0.86
6.	Fear of social stigma can make GBV persist	96	22.9	324	77.1	3.03	0.88
7.	Fear of retaliation can make GBV persist	105	25.0	315	75.0	2.99	0.91

Table 2 revealed perceived causes of GBV among adolescents in Osun State, Nigeria. As shown in the table, the percentage of participants who agreed to each of the items in the table is far greater than those who expressed disagreement. This suggests that most of the participants accept that the measuring items are a true reflection of the causes of GBV among adolescents in

the sampled population. More specifically, the majority of the participants agreed that "Competition over dwindling natural resources like water and arable land can lead to conflicts within families…" was the topmost perceived cause of GBV among adolescents (82%, $M = 3.03, SD = 0.84$). The second most perceived cause was "Fear of social stigma." (77%, $M = 3.03, SD = 0.88$), followed by "A culture of silence discourages victims of GBV from reporting it…" (76%, $M = 2.92, SD = 0.93$), then "Fear of retaliation…" (75%, $M = 2.99, SD = 0.91$), among others.

Qus. 2: What are the perceived effects of GBV among adolescents in Osun State, Nigeria?

Table 3 shows findings of the data analysed for the perceived effects of GBV among adolescents in Osun State, Nigeria. The table revealed a resounding agreement among the participants for each of the items measuring the perceived effect. This suggests that most of the participants accept that those items are a true reflection of the effects of GBV among adolescents in the sampled population. Specifically, the findings showed that the topmost perceived effect of GBV was: "Adolescents who experience GBV may suffer injuries, ranging from minor bruises to severe physical trauma…" (86%, $M = 3.23, SD = 0.84$). The second most perceived effect was "GBV may lead to unwanted pregnancies" (85.7%, $M = 3.21, SD = 0.79$), followed by "GBV can lead to reproductive health complications"(85%, $M = 3.12, SD = 0.79$), then the view that "GBV can lead to low self-esteem, self-blame and feelings of worthlessness"(83%, $M = 3.16, SD = 0.86$), and that "Adolescents who experience GBV may engage in risky behaviour like substance abuse"(82%, $M = 3.13, SD = 0.83$), to mention but a few.

Table 3. Perceived Effect of GBV among Adolescents

	Disagreed		Agreed			Std.
Variables	N	%	N	%	Mean	Dev
Adolescents who experience GBV may suffer injuries, ranging from minor bruises to severe physical trauma	59	14.1	361	85.9	3.23	0.84
Sexual violence does not lead to sexually transmitted infections	124	29.6	296	70.4	2.87	0.98
GBV may lead to unwanted pregnancies	60	14.3	360	85.7	3.21	0.79
GBV can lead to reproductive health complications	61	14.6	359	85.4	3.12	0.79
Adolescents who experience GBV may engage in risky behaviour like substance abuse	73	17.4	347	82.6	3.13	0.83
GBV can lead to post-traumatic stress disorder	90	21.5	330	78.5	3.03	0.86

GBV can lead to low self-esteem, self-blame, and feelings of worthlessness	71	16.9	349	83.1	3.16	0.86
GBV can lead to thoughts of self-harm or suicide in adolescents	79	18.9	341	81.1	3.08	0.83
GBV can lead to academic decline, affecting future education and career prospects	81	19.3	339	80.7	3.10	0.88
GBV can lead to isolation and withdrawal	83	19.8	337	80.2	3.06	0.89
Adolescents who witness GBV within their families may be at increased risk of perpetuating a cycle of violence	85	20.2	335	79.8	3.13	0.87
Adolescents who experience GBV may face stigma and shame, making it difficult for them to seek help or support	92	21.9	128	78.1	3.07	0.88
The effect of GBV can persist into adulthood, influencing an individual's mental and emotional well-being for years to come.	111	26.5	308	73.5	2.94	0.94

Qus. 3: What are the perceived impacts of promoting environmental sustainability and value re-orientation on GBV among adolescents in Osun State, Nigeria?

Table 4 presents the findings on the perceived impacts of promoting environmental sustainability and value reorientation on GBV among adolescents in Osun State, Nigeria. The table showed that a greater percentage of the participants agreed with the potential impact of most of the items listed (as capable of reducing GBV among adolescents in the sampled population). Particularly, the most rated perceived impact of promoting environmental sustainability and value re-orientation on GBV among adolescents was "Equitable and sustainable management of resources can reduce tensions and conflicts in families and communities" (82%, *M = 3.11, SD = 0.89*). The second most perceived impact was "Sustainable energy solutions such as clean cook stoves and solar power can reduce the need to collect firewood thus improving their health and reducing the risk of GBV that can occur during wood collection" (80%, *M = 3.05, SD = 0.85*), followed by "Women's access to eco-friendly agricultural or renewable energy projects can create job opportunities…"(79%, *M = 3.04, SD = 0.91*), then the view that "Providing support services like medical care and legal assistance to survivors of GBV can reduce GBV"(78%, *M = 3.04, SD = 0.86*), and that "The establishment of a community-based mechanism for holding individuals and groups accountable for GBV…"(77%, *M = 2.98, SD = 0.90*), among others.

Table 4. Perceived Impacts of Sustainability and Value Reorientation on GBV among Adolescents

Variables	Disagreed		Agreed		Mean	Std. Dev
	N	%	N	%		
Equitable and sustainable management of resources can reduce tensions and conflicts in families and communities	75	17.9	345	82.2	3.11	0.89
Sustainable energy solutions, such as clean cook stoves and solar power, can reduce the need to collect firewood, thereby improving their health and reducing the risk of GBV that can occur during wood collection.	84	20.0	336	80.0	3.05	0.85
Respecting women's sustainable traditional knowledge can empower women	97	23.2	322	76.8	3.04	0.91
Women's access to eco-friendly agricultural or renewable energy projects can create job opportunities that can empower women economically, reducing their vulnerability to GBV	90	21.5	330	78.8	3.04	0.91
Challenging traditional norms and stereotypes that justify unequal power dynamics can reduce GBV	131	31.3	288	68.8	2.92	0.90
Value reorientation can help women assert their rights	111	26.4	309	73.6	2.93	0.92
Providing support services like medical care and legal assistance to survivors of GBV can reduce GBV	93	22.1	327	77.9	3.04	0.86
Responsible media portrayal of gender and relationships, discouraging the glamorization of violence, and promoting healthier representations can't reduce GBV	155	36.9	265	63.1	2.76	0.93
A cultural shift where society collectively rejects GBV as unacceptable behaviour cannot reduce GBV	158	37.7	261	62.3	2.72	0.95
Teaching individuals about healthy relationship consent and the negative consequences of GBV cannot reduce GBV	160	38.3	258	61.7	2.77	0.97
Engaging religious and cultural leaders in promoting values of respect and equality in their community cannot reduce GBV	145	34.6	274	65.4	2.82	0.89
The establishment of a community-based mechanism for holding individuals and groups accountable for GBV can reduce the incidence of GBV	97	23.2	322	76.8	2.98	0.90

4.3 Multiple regression analysis for predictive effect of environmental sustainability and value re-orientation on GBV among adolescents in Osun State, Nigeria.

A standard multiple regression analysis using the "Enter method" was performed to determine the predictive effect of environmental sustainability and value re-orientation (the independent variables) on GBV among adolescents (the dependent variable). The analysis aimed to determine whether the two independent variables could make a statistically significant contribution to the prediction of GBV among adolescents in the current study. Preliminary analyses were conducted to ensure no violation of the assumptions of multicollinearity, singularity, and normality. As shown in Table 5, the two independent variables have reasonable positive correlation coefficients with the dependent variable (0.558 and 0.538 for value reorientation and environmental sustainability, respectively), indicating that the higher the environmental sustainability and value-reorientation practices, the higher the chances of reducing GBV among adolescents. In addition, the two independent variables were moderately correlated with each other (0.504), suggesting that the two variables were fit to be included in the model since they are not strongly correlated.

Table 5: Multiple Regression's Preliminary Assessment of Correlations among Variables

		GBV among adolescents	Value-reorientation	Environmental sustainability
Pearson Correlation	GBV among adolescents	1.000	.558	.538
	Value-reorientation	.558	1.000	.504
	Environmental sustainability	.538	.504	1.000
Sig. (1-tailed)	GBV among adolescent	.	.000	.000
	Value-reorientation	.000	.	.000
	Environmental sustainability	.000	.000	.
N	GBV among adolescent	416	416	416
	Value-reorientation	416	416	416
	Environmental sustainability	416	416	416

Table 6 revealed that the multiple regression model (the combination of value reorientation and environmental sustainability) produced $R^2 = .400$, $F (2, 413) = 137.48$, $P < .0005$. This result indicates that the two independent variables of the study jointly explained 40 per cent of the total variance in the dependent variable (GBV among adolescents). Simply put, this value implies that the two variables accounted for 40 per cent of the various factors that contribute to gender-based violence among adolescents in the current study. The model value was

statistically significant ($P < .0005$). The table further shows that each of the two independent variables (value reorientation and environmental sustainability) uniquely explained 38.4% and 34.4% of the variance in the dependent variable, respectively. All the contributions were statistically significant ($P < .0005$). Besides, the model output shows that the tolerance and the VIF (Variance inflation factor) values (.746 and 1.341, respectively) were within the range of acceptability (Tolerance value was not below .10, and VIF value was not above 10), which further indicates no issue of multiple correlations among independent variables or singularity problem. Altogether, this result implies that value re-orientation and environmental sustainability have statistically significant effects in the prediction of gender-based violence among adolescents in Osun State, Nigeria. That is, the higher the entrenched culture of environmental sustainability and value-reorientation, the better the chances of reducing GBV among adolescents in the sampled population. Of these two variables, value re-orientation made the largest unique contribution (beta = 0.384), although environmental sustainability also made a statistically significant contribution (beta = 0.344).

Table 6: Summary of Analysis of the Predictive Effects on GBV among Adolescents

Model		Std. Coefficients Beta	t	Sig.	Correlations			Collinearity Statistics	
					Zero-order	Partial	Part	Tol.	VIF
1	(Constant)		6.53	.000					
	Value-reorientation	0.384	8.71	.000	0.558	0.394	0.332	.746	1.34
	Environmental sustainability	0.344	7.79	.000	0.538	0.358	0.297	.746	1.34
	Regression (sum) = 49.43								
	Residual (sum) = 74.25								
	Total = 123.68								
	R = 632; R^2 = 0.400; Adj. R^2 = 0.397; Std. Error Estimate = 0.424; df1 = 2; df2 = 413; F-Change = 137.4; P = .000								

a. Predictors: (Constant), Environmental sustainability, Value reorientation
b. Dependent Variable: GBV among adolescents

5. DISCUSSION

Environmental stress factors, particularly those related to water and land scarcity, can increase tensions within families and communities, leading to violence against women and girl children. This is because in most communities, women and girls are often responsible for collecting water for their households.

Water insecurity can lead to GBV, especially in a patriarchal society among intimate partners (Tallman et al., 2022; Cole et al., 2023). However, Agrawal et al. (2023) have suggested that focused interventions and policies to reduce the effects of climate change and environmental stressors will decrease the prevalence of GBV.

Moreover, this study has also identified social stigma as a factor responsible for the prevalence of GBV, as many victims may be reluctant to report GBV due to fear of stigmatisation. Most victims fear social shame, ostracism, and blame that they may suffer from society. This, in most cases, leads to a culture of silence that has been identified in this study also as one of the causes of GBV. Societal norms and values sometimes discourage victims from speaking out about their experiences of GBV, thus perpetuating a cycle of violence for them (Harrison & Gill, 2017).

The range of socioeconomic situations in which GBV occurs is reflected in the distribution of participants between urban and rural locations. Studies conducted by Gupta et al. (2018) and Clark et al. (2019) have demonstrated that social norms, limited educational opportunities, and poverty can all lead to increased incidences of gender-based violence in rural areas. According to this study, the main causes of GBV are the interaction of socioeconomic, cultural, and environmental factors. Competition for scarce natural resources has been identified as the primary driver of GBV, which is consistent with research showing how environmental stressors exacerbate violence. The fear of GBV-related social stigma is consistent with research showing the significant influence of societal norms and attitudes on survivors' willingness to come forward and ask for assistance (Jewkes et al., 2017). Because of the stigma associated with GBV, survivors may be discouraged from seeking help, which could contribute to a climate of impunity and silence.

Research showing the impact of social norms that prevent honest conversation and disclosure of violence is consistent with the identification of a culture of silence as a major obstacle to reporting GBV. It has been discovered that cultural elements, including traditional gender roles for women and views on family privacy, are connected to the culture of silence among GBV survivors in Osun State. This result is in line with the conclusions drawn by Ellsberg et al. (2008).

The idea that retribution is the root cause of gender-based violence (GBV) is consistent with research by Gupta et al. (2018) and Jewkes et al. (2017), which highlight the control mechanisms and power dynamics that sustain violence in relationships. Furthermore, the fear of retaliation can keep survivors in abusive relationships and hinder their capacity to report abuse to the proper

authorities or leave violent situations. This study found that among adolescents in Osun State, physical injuries were the most perceived result of GBV. Research such as that conducted by Ellsberg et al. (2008) has demonstrated that GBV can cause injuries of varying severity, ranging from mild bruising to severe trauma, which can affect the physical and mental health and well-being of survivors. From this study, promoting environmental sustainability and value re-orientation was perceived to have a positive impact on the reduction of gender-based violence (GBV) among adolescents in Osun State, Nigeria. Ensuring equitable and sustainable resource management within families and communities is a key strategy for reducing conflicts and violence in society. Scarcity and competition for environmental resources can exacerbate violence within families and communities, making sustainable resource management crucial for preventing GBV. The findings of Akabuiro (2022) attest to the fact that energy poverty can perpetuate gender-based violence within the community. For example, access to clean energy alternatives, such as solar power and clean cook stoves, can enhance women's safety by reducing exposure to indoor air pollution and the need to collect firewood in unsafe, hostile neighborhoods or environments. Research on the impact of economic empowerment in reducing vulnerability to gender-based violence aligns with the recognition of women's access to eco-friendly agricultural and renewable energy projects, which offer work opportunities (Gupta et al., 2018).

Women who are financially independent are more able to escape violent environments, get the help they need, and question the gender stereotypes that encourage violence. This observation aligns with the conclusions drawn by Jewkes et al. (2015). Access to healthcare, legal support, therapy, and housing can lessen the psychological, social, and physical effects of gender-based violence while promoting the healing and self-determination of survivors.

The recognition of the significance of offering assistance to GBV survivors is in line with a holistic strategy to combat violence, which includes the prevention and response tactics that research by Ellsberg et al. (2008) emphasized. The importance of community involvement in resolving violence and encouraging the changing of societal norms is shown in the construction of community-based systems for holding people and groups accountable for GBV (Jewkes et al., 2017). Involving men, boys, and other community leaders in GBV prevention initiatives helps promote a culture of respect and non-violence by encouraging a sense of collective responsibility and support for survivors. This outcome is in line with the research conducted by Clark in 2019.

Beyond what is explained by other factors in the regression model employed in this study, the two independent variables —environmental

sustainability and value reorientation —individually explain an additional 26.5% of the variance in GBV. This suggests that value reorientation and environmental sustainability each individually contribute to the prediction of GBV among teenagers in Osun State, highlighting the phenomenon's complex character (Tabachnick & Fidell, 2019). Value reorientation and environmental sustainability were both statistically significant predictors of gender-based violence (GBV) in adolescents, but the influence of value reorientation was greater, as evidenced by its larger beta value. The importance of these predictors in understanding and addressing the prevalence of GBV is underscored by their statistical significance, which suggests that interventions focused on value reorientation may have a particularly strong impact on reducing the incidence of GBV in Osun State, Nigeria. This outcome is in line with what Hair et al. (2019) found.

6. CONCLUSION

This study highlighted the prevalence, causes, consequences, and possible interventions for gender-based violence (GBV) among adolescents in Osun State, Nigeria. The girl child is highly vulnerable to gender-based violence in Osun State. In Osun State, Nigeria, social norms, power disparities, and environmental stressors have all been linked to gender-based violence. It has been discovered that GBV has an impact on young women's and girls' physical, reproductive, and mental health. In the meantime, equitable resource management and women's economic empowerment were highlighted as preventive measures, and promoting environmental sustainability and value reorientation appears as a feasible way to minimize GBV. Regression analysis highlights the necessity for comprehensive interventions by highlighting the predictive impacts of value reorientation and environmental sustainability on GBV. In Osun State, Nigeria, addressing the socioeconomic, cultural, and environmental underlying elements that impact gender-based violence (GBV) is essential to both reducing GBV and advancing gender equality among adolescents.

Environmental factors can increase gender-based violence. For example, access to resources like water and land can lead to increased competition and conflict within families, often disproportionately affecting women and girls. While the provision of sustainable energy solutions, such as clean cookstoves and solar power, can reduce the need to collect firewood, thereby improving women's health and reducing the risk of GBV that can occur during wood collection. Women's access to eco-friendly agricultural or renewable energy projects can create job opportunities that can empower women economically, reducing their

vulnerability to GBV. Moreover, climate change-induced disasters can disrupt livelihoods, displace families, and increase stress levels for women, making them vulnerable to violence. Environmental degradation can limit access to essential resources and services, which may force women and girls to travel long distances, increasing their risk of exposure to violence and exploitation.

Value reorientation can be a powerful tool for preventing GBV. It can promote gender equality and foster respect for women. It can shift societal attitudes, behaviours, and perceptions towards women and the girl child. It can create a more equitable and just society where GBV is no longer tolerated.

6.1   Recommendations

To reduce GBV prevalence and promote gender equality and social justice in Osun State, the following are recommended:
Strong political will and leadership are essential for prioritizing the prevention and response to GBV. Therefore, non-governmental organisations and religious bodies should collaborate with the Osun State Government to increase survivors' access to support services such as medical care, legal assistance, and shelter.
Community leaders should put community-based interventions into practice, such as holding people accountable for any GBV in their neighbourhood.
Gender equality and wholesome relationships should be encouraged in schools and places of worship by religious and school authorities.

To lessen the likelihood that girls and women may be the targets of abuse and violence, the Osun State Ministry of Youth and Women Affairs should give them access to employment options. School and religious leaders should promote gender equality and healthy relationships in schools and worship centres. Osun State Ministry of Youth and Women Affairs should empower girls and women economically by providing job opportunities to reduce their vulnerability to abuse and violence. Osun State Government should implement initiatives for equitable and sustainable resource management to reduce tensions and conflicts in families.

The State Ministry of Youth and Women Affairs should develop a value re-orientation programme to challenge cultural norms and the culture of silence. Further research is needed on GBV in low and middle-income countries to address specific cultural, social, and economic contexts. Moreover, there is a need for investigating the role of technology in both perpetuating and preventing GBV, including cyberbullying, online harassment, and the use of technology for victim support.

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The Changing World Order and US-China Maritime Power Contestation in the Indo-Pacific

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Abstract

The U.S. has effectively dominated the grand chessboard of world geopolitics for many decades; however, the economic rise of China and the resultant maritime power contestation with the US are rapidly changing the status quo within the Indo-Pacific Region. The announcement of "Pivot to Asia" followed by "Asia Rebalance" strategies by US President Obama and the labelling of Asia Pacific to a more focused "Indo-Pacific" by President Trump clearly reflects the U.S. strategic shift to the region. To counter the U.S. presence in Southeast Asia and address the strategic maritime vulnerability of its Sea Lines of Communication (particularly in the South China Sea), China has embarked on an ambitious military modernization plan, coupled with the initiation of mega economic projects in Asia. This research focuses on developing an understanding of the evolving and rapidly changing maritime power contestation milieu between the US and China, studied through the lens of Realism. It is an in-depth study of Chinese maritime vulnerability and the adopted strategy to overcome it. The research employs the theoretical lens of Offensive Realism for studying the U.S national strategy to retain the status of a hegemon and the Defensive Realist lens to study the adopted Chinese strategy to ensure its steady rise and safeguard its strategic maritime vulnerabilities.

1. INTRODUCTION

The U.S. has effectively dominated the global chessboard of world geopolitics for many decades; however, its journey towards gaining the status of a hegemon (the sole power) in the world has been a tumultuous one (Brzezinski, 1997). In the post-WW-II world, the US fought a long, tiring, and costly war in Vietnam (Hastings, 2018). The confrontation with the erstwhile USSR over conflicting interests led to the initiation of the Cold War between the two, and the world saw the rise of a Bipolar world (Westad, 2017).

The 1990s saw the rise of the U.S. as the sole superpower, despite the disintegration of the U.S.S.R. (Monteiro, 2014). However, the dawn of the 21st Century saw the unprecedented economic rise of China, which has started

threatening the U.S status of a hegemon in world politics (Rabena, 2017). The changing world order and rise of multipolarity have posed significant challenges for U.S. policymakers, and correspondingly, the U.S. government has announced National Security Strategies, Defence Strategies, and national policies for the Asia-Pacific region (Campbell & Andrews, 2013) over the last decade or so.

Within the Indo-Pacific Region, the competing interests of the US and China over multifaceted regional maritime resources, driven by power prestige syndrome, are rapidly changing the status quo. The military and economic rise of China (Zhang, 2013) and its contiguity to the Western Pacific (with rich maritime resources) has brought this region under enhanced focus of U.S. policy makers, particularly in the Post 9/11 scenario. The resultant maritime power contestation between the US and China has been seen manifesting itself in many national policies of the US for the Free and Open Indo-Pacific Region over the last decade or so. The announcement of "Pivot to Asia" followed by "Asia Rebalance" strategies by President Barack Obama and the labelling of Asia Pacific to a more focused "Indo-Pacific" by President Trump were steps in the same direction. To protect Chinese maritime trade, counter U.S. presence in the broader Indo-Pacific region, and address the strategic vulnerability of its Sea Lines of Communication (particularly in the South China Sea), China has embarked on an ambitious military modernization plan, coupled with the initiation of mega economic projects involving the majority of Asian nations. The evolving and rapidly changing maritime power contestation landscape, driven by divergent national interests between the U.S. and China, coupled with ongoing trade wars, poses serious challenges to global peace (Rourke, 2019).

The last decade or so has seen the Indo-Pacific region coming into the limelight and garnering increased attention among the world's powers. This region remained in focus during the post-World War II era, as the once infamous Imperial powers abandoned it in 1945-55. It was during this time that the US made efforts to overtake Vietnam, although the Cold War saw its brutal manifestation in this region (Elliott, 2010). It is now being said with certain that 21st Century's Superpower structure will get unfolded in broader Asia Pacific and more specifically the Indo-Pacific. The leading world powers have always shown keen interest in this region, and, notwithstanding, owing to the great geo-strategic importance it carries for all. The presence of the world's busiest maritime Sea Lines of Communication (SLOCs), the rich hydrocarbon resources, and the vast swath of land/ maritime mass all add to the enhanced significance of this region. The significance is further accentuated by the presence of China and India, the two countries with the largest human resources in the world. Besides this, the presence of Southeast Asian nations and Australia within and along its borders

further highlights the strategic importance this region carries. There is no denying the fact that the world has traditionally been looking towards the U.S and the EU after the mid-20th Century, yet the world is seeing a great shift (attributable to many factors) of economic boom/ activity towards the East since the start of the 21st Century. Hence, it can be said that this change of focus towards the East is likely to play a pivotal role in shaping the world order in the current millennium.

The U.S. has always remained the only power (the sole security guarantor) in this region and has exerted strong influence for a long time; however, with the economic rise of China, the pages of history are seeing a dramatic and significant shift in maritime geo-politics of this area (Rourke, 2019). It was in this backdrop of regional contestation that the U.S. began paying increased attention to this region and adopting national policies, such as the Pivot to Asia and Rebalance to Asia, which are clear indications of the same. The U.S. adopted policy contours of enhanced engagement with the region; however, the contestation with China in the maritime domain has been significant. U.S. aerial flights in the South China Sea over the Spratly Islands (being converted into military bases by China) and resultant Chinese aggressive response (challenging the U.S. presence) is a clear indication of serious maritime power contestation the world is going to witness in the near future (Jennings, 2018). There is no denying that U.S. aerial missions are aimed at conveying a strong message to the Chinese counterpart regarding the forced conversion of these islands into airstrips/ military bases. The maritime patrolling by U.S. ships in the disputed waters under the garb of freedom of navigation operations is raising the ante in this region. This evolving geo-strategic environment, shaped by conflicting national interests/ strategic goals, is leading to a maritime power contestation between the US and China, which is setting the stage for a future fraught with possibilities of unwelcoming and unpleasant circumstances, unless the leadership of both powerhouses mutually decides to avert the looming threat. Only time will tell whether the U.S and China will be able to avoid falling into the Thucydides Trap (Allison, 2017).

In this paper, an attempt has been made to discuss in detail the ongoing maritime power contestation between two global powerhouses, the U.S. (the established power) and China (the rising power). The paper attempts to address the intellectual question regarding the future of US-China maritime power contestation, a topic that has been widely discussed among intellectuals and strategists alike and remains unresolved. This paper first highlights the strategic significance of the broader Indo-Pacific Region and specifically the South China Sea, where maritime power contestation is manifesting in tangible terms. The paper also briefly covers the various national strategies adopted by the U.S.

administration in the 21st Century, with a focus on containing China in the broader Indo-Pacific Region. The paper then discusses Chinese maritime strategic vulnerabilities and the adopted strategy to counter the U.S.'s enhanced focus on the Indo-Pacific Region. The dispute over the South China Sea has been discussed in detail, duly incorporating the claims of the regional countries on these waters. The key findings of the paper are elaborated below, and pertinent conclusions are presented at the end of the paper.

2. THEORETICAL FRAMEWORK

Using a mixed-methods approach, this study explores the Changing World Order in the Current Century through the lens of realist theory, while observing the maritime power contest between the U.S. and China from the perspective of a hybrid conflict mapping model. The Changing World Order and the resulting power contest between different powerhouses of the world are best described by realist thinking. A brief description of Thucydides' (Thucydides, 2009) contribution to realist philosophy is presented first, followed by a review of Hans Morgenthau's work (Morgenthau, 1978). To fully understand the Realist Paradigm, we must study the works of established contemporary scholars John J. Mearsheimer (Mearsheimer, 2011) and Kenneth N. Waltz (Waltz, 1979), who both advocate offensive and defensive realism. Based on the intellectual ideas of these renowned scholars, the research data have been analyzed through the application of selected realist theories.

Using the Hybrid Conflict Mapping Model, the rise of a New Power with divergent economic and security interests has been explained, leading to a fierce maritime power contestation between existing and emerging powers. In the current era, maritime power contestations must be examined from various aspects of national policymaking, particularly in the realms of security and economics.

This research has been conducted through a Realist theoretical lens, whereby the Change in the World Order in the Current Century has been studied, focusing on maritime power contestation between the US and China in the Indo-Pacific.

2.1   US Employing Offensive Realism

The famous book written by Mearsheimer, "Tragedy of Great Power Politics," houses his masterpiece work on the infamous theoretical framework of Aggressive Realism. The term "Offensive Realism" has also been used in other contexts, carrying the same meaning. The US is following the offensive realism approach in conducting its global policies. This literary work by Mearsheimer draws a relationship between how Superpowers conduct their state affairs in the

international arena, based on five essential assumptions (Mearsheimer, 2011). The State in an international system is best described as Anarchic in nature, and there is no singular power that controls all the states (Mearsheimer, 2017).

The second assumption suggests that a state with an offensive military capability can attack another state within the international system. Thirdly, there is a lack of trust between states, as one state can use force against another at any given point in time, and any such prediction beforehand is difficult to make. The fourth assumption pertains to every state's fundamental right to the protection of its territorial integrity, which is a genuine concern. Fifthly, the states in the international system tend to behave in a rational manner, and the adopted strategy indicates the desire for survival in the international arena (Mearsheimer, 2011). Thus, these essential assumptions lead to the formulation of a structure, wherein states feeling insecure take actions/ steps for their ultimate survival in this anarchic international system. This leads to the evolution of an anarchic environment in the international system, where the powerful states ensure their own survival at the cost of undermining other states. Thus, a militarily and economically strong state can coerce the behavior of weaker states by applying different state-sponsored pressures. In such an anarchic system, threatened states are always trying to improve upon their international standing amongst the comity of nations to ensure their long-term survival (Taliaferro, 2000).

2.2 China Employing Structural Realism

Structural realism (also known as Defensive realism) is a realist lens given away by Kenneth Waltz in his infamous book "Theory of International Politics". As compared to offensive realism, the concept of Defensive Realism is different, wherein it is considered an unwise strategy for a state to dominate any other state (Waltz, 1979). The writer has disregarded the concept of hegemony of one country in international politics, as this could potentially lead to increased friction and tensions between two states. Waltz has presented a considered opinion that contrasts with offensive realism, wherein states in the international system have a nearly equal distribution of power, resulting in greater stability among states and making them less prone to conflict (Slaughter, 2011). That does not mean that states in Defensive realism have to stay where they are, and no upward trajectory can be achieved. The states can follow an agenda that aims to increase their power, but they must be mindful that such an elevation is not achieved by undermining other states. In offensive realism, a state pursues its agenda at the cost of other states. A state may be putting another state in fear by making certain selections of arms, and the other state is doing the same, thereby creating a security dilemma between the two. The existing Security Dilemma

between the U.S. and China best describes the ongoing power struggle. It can be argued that Defensive realism is better than offensive realism, as in such an international system, weaker states feel less insecure in the face of a much stronger state (Taliaferro, 2000).

2.3   Realist Lens Explaining Inter-State Power Contestation

The interstate power contestation compels the states in the international arena to adopt different coercive and non-coercive tools and techniques to ensure their supremacy against another state. There is no denying the fact that in such an anarchic world system, the state that has more power would always use the same to further the interests of the country and in the process undermine the national interests of other states. The theoretical lens of realism, and more specifically offensive realism, best explains the ongoing maritime power contestation between the U.S. and China in the Indo-Pacific. In the maritime power contestation of rising power (China) and established power (US), the US is appearing to be a powerful state which is protecting its national maritime interest in the Indo-Pacific, but at the cost of undermining the national interest of China (Ellsworth et al., 2000). Thus, the offensive realist lens as propagated by Mearsheimer can be seen as explaining the maritime power contestation between the two powerhouses of the anarchic international system.

On the other hand, China is trying to safeguard against its energy needs passing through the Sea Lines of Communication (SLOC) running close to mainland China, thus acting within the sphere of its perimeter of security, not undermining any other state's national maritime interest. Hence, it can be said that China's strategy is in line with the Waltz Defensive Realist lens. China, in the process, is attempting to secure its interests by maximizing its security near its maritime borders/ Exclusive Economic Zone (EEZ) (Waltz, 1979). Though China is also seeking power in the international system, it is not attempting to do so at the cost of another state. China is extending the perimeter of its security at a very slow pace, including the construction/ conversion of artificial islands, thus fitting into the definition of the defensive realist lens, as outlined by Waltz. There are maritime challenges, such as the Malacca Dilemma, yet China is applying elements of national power in a thoughtful and strategically considered manner, thereby accruing an extended perimeter of security in line with its maritime national interests (Zhang, 2011), amidst ongoing maritime power conflicts with the US.

2.4   The Hybrid Conflict Mapping Model

Based on the Hybrid Conflict Mapping Model, the rise of a new power whose economic and maritime security interests differ from those of an established power would lead to fierce maritime power competition between the two. Conflict would arise from divergent viewpoints on the protection of national maritime interests, leading to a fierce power contest and potentially escalating into a full-scale conflict. The prospects for mutual accommodation would also increase if the two contesting nations find common ground in areas of economic and security cooperation, both of which are embedded in maritime cooperation and not power contestation between the US and China. This research work has attempted to achieve the same goal, enabling policymakers to predict the future more accurately and help avoid a full-scale conflict. In the 21st-century changing global order, mutual cooperation and accommodation in the maritime domain have been projected based on the national interests of countries.

3. RESEARCH METHODOLOGY

A qualitative approach has been employed for the conduction of the research work (Kumar, 2013). Research objectives have been achieved using grounded theory study designs (Charmaz, 2007). During qualitative research, the researcher focuses on a qualitative phenomenon, which is determined by the quality and reasons behind human behavior, as well as the observation of existing documents. Due to the subjective nature of research work, this methodology was selected. The problem is investigated through exploratory research, aiming to clarify the concepts (changing global order and domains of power contestation) under consideration. A primary data set was collected by interviewing three categories of respondents (academics, practitioners, and politicians), while a secondary data set was collected by studying books, articles, magazines, newspapers, research journals, and current internet data.

Research design, which considers philosophical aspects that inform the selected research methodology, is discussed first. The Michael Crotty Model, encompassing epistemology, theoretical perspective, and methodology, was examined in detail and formulated into a suitable model (based on the four elements of research), thereby ensuring that research strictly follows it (Crotty, 1998). In line with Crotty's model, the epistemological ground of research turns out to be subjectivism, owing to the nature of research work being subjective in nature. The theoretical base of the research work has been selected as interpretivism, as it seeks to balance subjectivity with a more systematic and rigorous approach, recognizing that multiple interpretations are possible and that context and meaning are crucial. Grounded theory explains the methodology used

for conducting research. The rationale for selecting grounded theory explains that it aims to understand the meanings and experiences of participants within a particular context, aligning with interpretivism's emphasis on understanding social phenomena through interpretation (Birks & Mills, 2015). As different themes emerged from the open-ended questionnaires and semi-structured interviews with respondents from varied backgrounds, the identified method for data identification and analysis proved to be Thematic Identification/ Analysis (Crotty, 1998). Open-ended questions have been formulated, as they allow participants to share their thoughts, feelings, and experiences in detail, providing rich and nuanced data. Semi-structured interviews (involving primary data collection from 18 respondents) were conducted, enabling the researcher to explore specific topics while still allowing for emergent themes to arise. Thematic analysis is a method that identifies, codes, and categorizes themes within the data. Open-ended questions and semi-structured interviews provide the ideal data for this type of analysis (Braun & Clarke, 2019). A graphical representation of the four elements of research that lead to the selection of a correct method is as under:-
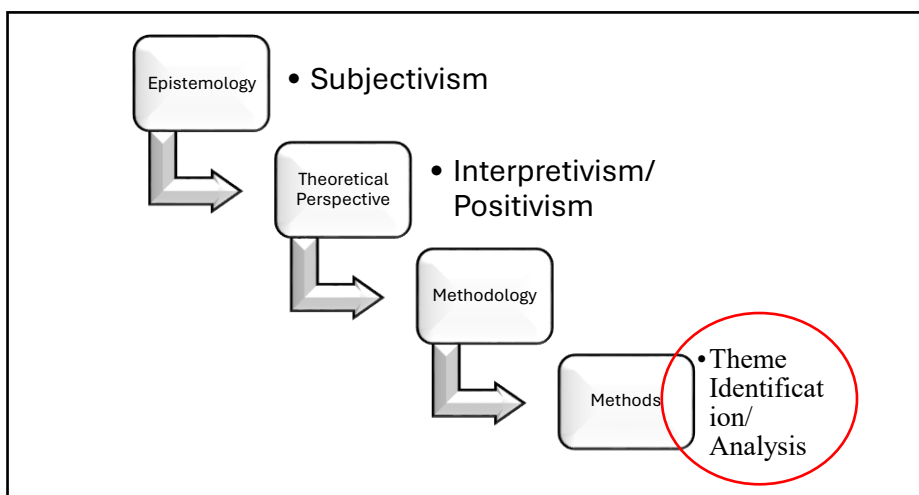

Figure 1.1 – Adopted Model for Research with Selected Method for Analysis

3.1   Strategic Significance of Indo-Pacific

The region of Indo-Pacific did not gain much traction in the post-Cold War era and was given a considerably low priority by the Communist and capitalist power blocks. The region came into the limelight with the US's announcement of its Pivot to Asia and Rebalancing to Asia national strategies, then shifted from Asia Pacific to a more specific Indo-Pacific and finally to the Free and Open Indo-Pacific policy in the last decade or so. The economic

potential of the region, combined with China's rapid and steady economic growth, has further enhanced the strategic significance of this area. Besides, vital SLOCs housing a major chunk of world maritime trade, coupled with the presence of different Choke points, further adds to the overall significance of this region for both the US and China.

It can be argued that the final chapter of the changing world order in the 21st Century will be written in broader Asia-Pacific in general and Southeast Asia (housing South China Sea waters) in specific. An elaboration of factors that contribute to the overall significance of Indo-Pacific is discussed in the following paragraphs.

3.2 Geographical Significance of Indo-Pacific Region

The geographical layout of the region, by virtue of the connectivity it affords to the Pacific and Indian Oceans, gives it a distinctive strategic importance. The infamous Malacca Strait (posing a strategic dilemma to Chinese maritime shipment), considered a SLOC that houses heavy maritime traffic/ trade throughout the year, is present in this region. Besides, the water body of the South China Sea, which is another vital global trade SLOC, is in this region, thus further adding prominence to this region for competing powerhouses of the world. The presence of China and India (the two rising economic powers) with tremendous human resources further adds to its geographical importance. The proximity of this region to the emerging/ economically vibrant markets of Southeast Asia and East Asia is a significant attraction for foreign investors, who are drawn to a region of 665 million people (Gungwu, 2017).

Figure 1.2: Straits of Southeast Asia
Source: http://www.geocurrents.info/

3.3   Trade Routes

The region houses the Sea Line of Communications (SLOCs), which are undoubtedly the most important maritime trade lanes in the world. The Malacca Strait is considered the second-largest Oil trade route (Strait of Hormuz being the 1st one). It is worth mentioning that approximately 16 million barrels of oil pass through the Malacca Strait in a single year (Villar & Hamilton, 2017). Besides Malacca, other trade routes are also available in the region, namely the Straits of Sunda and Lombok, though these routes have less capacity than the Malacca. South China Sea in the region houses almost 25% of total global shipment in a year (trade worth approximately $5.3 trillion

3.4   Sea Lines of Communication (SLOCs)

These Western Indo-Pacific waters (Southeast Asian region) house three SLOCs. The major one is Malacca; however, the other two, Sunda and Lombok, are not very spacious owing to the limitations of trade container specifications. The Malacca Strait is a crucial choke point, given its strategic vulnerability to Chinese shipments in the event of a blockade. This makes it further valuable in the backdrop of the ongoing maritime power contestation between the US and China. Any traffic that has to enter/ exit both the Western Pacific and the Indian Ocean is, by force, required to pass through the narrow yet strategic Malacca Strait. It is the world's 2nd largest trade SLOC, only after the Strait of Hormuz (Villar & Hamilton, 2017).

It is pertinent to mention that in case of any future blockade of this important SLOC, there are two other straits available in the region, namely Sunda and Lombok, but neither is suitable for all kinds of sea trade container traffic, owing to the limitation of their size and depth, etc. The South China Sea is another global SLOC passing through the maritime region of Southeast Asia. South China Sea not only has untapped reservoirs of natural oil and gas, but this water body also sees a huge volume of annual maritime trade from the Western Pacific, specifically ASEAN, to other parts of the world.

4. US NATIONAL STRATEGY TO RETAIN STATURE OF HEDGEMON

4.1.   US Pivot to Asia

It was during the Presidency of Barack Obama in 2009 that the US began showing clear signs of a strategic shift in foreign policy, with an enhanced focus on Asia, relegating the Middle East to a lower priority. The lesser importance of the Middle East was reflected in the significant decision to prioritize the withdrawal of US forces from Iraq and a reduction in Afghanistan. Having made

tangible progress in the laid-out objectives of force reduction, President Obama began to look towards a more fruitful relationship with the broader Asia Pacific region (Parker & Anderson, 2016). From here the national policy documents started pouring in; Pivot to Asia being the first one announced by the Obama administration (Parker & Anderson, 2016). It is argued that this paradigm shift in foreign policy by the US was seen by the world as recognizing and accepting the Strategic value of the Asia Pacific by the established superpower of the world. It also became clearer that the future of the World Order will be written in the Asian region, rather than in the Western world.

Pivot to Asia policy, as the name indicates, was focused on establishing a reinvigorated relationship with the regional countries of the Asia Pacific in four key areas. These included facilitating the economic potential of the region through purposeful economic ties, reinforcing and re-establishing the US as the primary security provider for the region, implementing planned infrastructural projects, and valuing the human resources of the region by establishing population-centric contacts/ exchanges. Hilary Clinton, then US Secretary of State, saw "The Pivot" as the US showing a forward-leaning posture towards the Asian region. The US's seriousness towards the successful accomplishment of the laid-out objectives of economic prosperity and promised security for the region was also stressed by the Secretary of State.

The Pivot term started gaining attention in the academic, political, and diplomatic circles after being mentioned in the article "America's Pacific Century". After the Secretary of State was President Obama, who further endorsed the term during an address to the Parliament of Australia (Parker & Anderson, 2016). Pivot's announcement was seen as a US strategy to tackle the economic rise of China and hinted towards the US initiating policy measures for the Containment of China (Castro, 2013).

It is now much clearer that U.S foreign policy for different parts of the world is driven purely by the dictates of national interest and policy evolution to mitigate any growing/ potential threat in synchronization with the pre-designated strategic objectives. The implementation of policy would always come at the cost of other states, and this reflects the adoption of an offensive realist mindset, as outlined by Mearsheimer. The economic rise of China and discussions of the Asian Century prompted the strategic decision of the US to announce the Pivot to Asia (Sultan, 2013).

4.2. Rebalancing to Asia

The journey of enhanced focus in US foreign policy towards the Asia Pacific, as outlined in The Pivot Strategy, underwent continuous monitoring at

home, with changes in set objectives made in response to the evolving strategic environment of the region. The next policy, having incorporated required changes, was announced as Rebalancing to Asia. It is argued that this US policymaker gave added attention to the Asia Pacific due to two major factors: military and economic ones. As was the case in the pre- and post-Cold War eras, the US initiated regional engagement primarily in the military domain, with the economic factor relegated to the lower end of the priority list. However, the Chinese response came both in the military domain (by building artificial islands in the South China Sea) and in the economic domain (by initiating the Belt and Road Initiative-related economic projects) to counter the US-led TPP. This led the US government to reevaluate the Pivot and quickly prioritize economic engagement with the region over its previous military focus. Thus, "Rebalance to Asia" is labelled as the US readjustment with the region from military to economic engagement. The hard power went in the background and the soft power took the lead (Sutter et al., 2013).

The main goals of the rebalance strategy include policy steps to augment the US-led world order, accessing and tapping the economic potential of Asian trade markets, refreshing and reassuring the US security commitments to regional allies, and encouraging them to take responsibility for their share of the same (Channer, 2014). This seemingly more focused and well-thought-out approach toward the broader Asian Pacific region received appreciation and recognition in the region and other parts of the world (Katagiri, 2019).

There is no denying the fact that the Rebalance strategy gained prominence owing to China's economic rise on the global stage. China's emergence not only threatened the essential national interests of the US in the Asia Pacific, but also successfully demonstrated its presence as a rising superpower in the changing global order of the 21st Century (Tellis, 2013).

It is argued that the Rebalance Strategy played a pivotal role in a fresh and purposeful engagement of the US not only with the Southeast Asian countries, but also with the broader Pacific region. Besides the major goal of rebalancing, a few other avenues of regional cooperation included fighting cybercrimes, collaboration in addressing the challenge of climate change, and assistance in capacity building against chronic health diseases with high mortality rates. The implementation of the economic goals of Rebalancing came in the form of a highly praised and imaginative economic initiative of the Trans-Pacific Partnership (TPP). TPP aimed at the successful opening of entry doors into Asian trade markets with reduced tariffs (Kuo, 2017).

4.3.   National Security Strategy (NSS) 2017 and Indo-Pacific

The President Trump era saw the announcement of NSS 2017, yet a careful look at the document highlights the US administration's comparatively lesser focus on the relationship with the Southeast Asian region (housing South China Sea and ASEAN countries), contrary to previous administrations. NSS 2017 does mention two ASEAN countries, i.e., Thailand and the Philippines, as important allies of the US, whereas economic partnerships with Singapore and Vietnam have been acknowledged (Weaver, 2018). The infamous Asia Pacific term (highlighted in Pivot and Rebalance to Asia) was done away with and a new term "Indo Pacific" coined by the Trump administration, reflecting departure from erstwhile broader concept to a more specific one now (Orchard, 2017).

The NSS 2017 seemingly has shown a clear departure from previous era NSS in many ways. Firstly, the much-vowed economic cooperation with the ASEAN countries did not find any place in NSS 2017. Secondly, the promise of net security provider to the allies in the region have also not been given much importance. A meagre announcement of Bilateral trade with the region can be seen as a direct result of pressure on the Trump administration, after abrupt decision of getting out from TPP (Sheng, 2017). Thirdly, NSS 2017 has a new term of "Indo Pacific" which have been used intensively across the globe in various diplomatic conversations. Though China sees it as Containment of China, the term seems less China-centric. The lack of focus on the ASEAN countries, specifically the US allies, has raised alarm bells in the region regarding US promises of economic prosperity and security needs (Sheng, 2017).

In a nutshell, it can be argued that US policy for the region has not changed significantly, but the US appears reluctant to play a military role in resolving regional disputes. The NSS 2017 reflects a careful approach being adopted by the US government; yet, the strategy seems fully aligned with the accomplishment of national policy goals in the region.

4.4.   Fate of Trans-Pacific Partnership (TPP) in the Asia Pacific

The eight-year effort of the Obama administration in terms of economic engagement with the Asian Pacific region, as a signatory to TPP, was abandoned by President Trump on his first day in office (Solís, 2019). Although Mr. Trump did demonstrate the US's economic commitment to the region, the damage had already been done. Those who worked towards the conceptualization and implementation of TPP felt torn away by the action of President Trump, as through such economic initiatives, not only the economy on US soil could have benefited, but this would have contributed towards enhanced influence/ economic leverage in the region against the Chinese onslaught of Belt and Road initiatives.

There is no denying that the regional leadership viewed the US decision as a difficult one, which also raised their suspicions regarding the seriousness of the US's economic and security promises/ commitments to the region. The planned visit of the US President to the Philippines and Vietnam further alienated the other countries in the ASEAN region, which assessed these diplomatic signs as a US effort to secure its own national interests, with little benefit for the region (Solís, 2019).

4.5.   US Policy of Free and Open Indo-Pacific (FOIP)

After shifting from the Asia Pacific to a more focused Indo-Pacific in Trump's era, the President, on September 22, during the Quad leaders' Summit, outlined the cardinal principles of the Free and Open Indo-Pacific (FOIP). Through FOIP, the US again demonstrated its commitment to a region that is free and open, a region that is interconnected and has bright prospects for economic prosperity, afforded by this mutual connectivity, and a region that is secure and resilient. The new strategy outlines that the US will be working with regional countries towards a journey of success in the rule-based world, noting that this cannot be accomplished alone without the cooperation of all stakeholders. The US urged all the regional countries to join hands in this shared vision, as this would require understanding historical perspectives and unprecedented security challenges ahead in the future (Free and Open Indo Pacific Policy, White House, 2022).

Besides economic and military aspects, a third pillar of governance has also been added in the final document of FOIP, released in February 2022 by the US government. The vision outlined in FOIP encompassed key areas, including ensuring free and open seas in the region, promoting economic trade, addressing the security concerns of regional nations, and supporting good governance through the adoption of best practices. In drafting the vision, a glimpse into the historical insights of the region was considered necessary to visualize and introduce the values and policies that would pave the way for regional growth and prosperity, while ensuring the region's security (Hang & Thuy, 2018).

The FOIP further enhances the strategic economic and military significance of the Indo-Pacific region, spanning from the West Coast of India to the West Coast of the US. The central point of FOIP policy turns out to be cooperative engagement with regional countries and institutions, such as ASEAN. It is argued that the concept of the Indo-Pacific is not new, as it has historically been shared by many countries around the world. In a nutshell, FOIP vision is a way forward towards ensuring regional economic prosperity and security, while remaining in the ambit of the rule-based world (Hang & Thuy,

2018).

4.6.   Chinese Maritime/ Energy Security Vulnerabilities

The Chinese economy has experienced sustained economic growth over the past few decades; however, this growth is critically dependent on the uninterrupted supply of energy resources to meet its domestic requirements and resultant consumption. Here comes the Achilles Heel of the Chinese economy, the required energy cargo must travel a long maritime distance (Zhang, 2008) and has to pass through critical SLOC that passes through the South China Sea (having maritime boundaries/ contiguity with many ASEAN countries). Besides this security vulnerability near home waters, the energy shipment is also susceptible to interruption en route from the Mediterranean, the Red Sea to the Persian Gulf, and to the West Coast of the Pacific Ocean. The Chinese dependence on shipments far away from home becomes further complex, owing to the availability of the world's fourth-largest Liquid Natural Gas (LNG) deposits in the mentioned maritime regions.

The engine of Chinese economic growth is dependent upon the supply of energy resources, and this shipment, which must travel a long way, faces a critical maritime choke point of the Malacca Strait. China is highly sensitive to this maritime vulnerability and would view any attempt to block this critical choke point as detrimental to its national interests. A corresponding military response to ease the situation may be a leading option for the Chinese leadership (Zhang, 2008).

The SLOCs available to China for transportation of her maritime energy cargo include the Malacca Strait (move of cargo from the Middle East to the Western Pacific Coast), the Sunda Strait (which could serve as an alternative to Malacca), and the Gaspar and Lombok Straits. Though all these straits can accommodate varied categories of energy cargoes, Malacca alone houses 80% of the Chinese energy shipments, thus turning out to be of strategic importance. It is argued that Chinese security vulnerabilities are a direct result of competitive strategies at play in these maritime waters. The anarchic nature of international politics, the changing world order in the 21st Century, and the resultant power struggle for occupying the top seat in the future global order have brought maritime competition to new heights in the Indo-Pacific waters, thus further exacerbating the Chinese maritime concerns (Zhang, 2008).

4.7.   Malacca Strait Dilemma – Chinese Major Strategic Maritime Vulnerability

It is an established fact that the maritime trade of China has the Malacca Strait as its lifeline, owing to the passage of a major chunk of energy cargo

passing through the strait. Fast economic growth requires energy cargoes at home, and these cargoes, which travel long distances, must finally go through the Malacca Strait (Zhang, 2011). The infamous Malacca Strait Dilemma is a situation where China has significant economic and strategic stakes in the Strait, yet, being far from home, China has limited influence in this area, which causes a maritime security vulnerability for China (Shaofeng, 2010).

Owing to ongoing maritime power contestation, there is a likelihood of a blockade of the Malacca Strait, and as China is heavily dependent upon this critical maritime artery, this adds to the delicate security situation of China in the maritime domain. A wise adversary of China would likely seek to exploit this strategic maritime vulnerability in any future conflict. The Chinese top leadership acknowledges this fact, as highlighted in the statement of Hu Jintao's in 2003, whereby the Premier highlighted that Malacca has strategic value/ implications for China and the country must take necessary steps to avoid such a situation in future and not only this, but all efforts must also be made to drive the enemies out of Southeast Asian waters (Storey, 2006).

 The ASEAN countries of Malaysia and Indonesia are separated by the narrow water channel of the Malacca Strait. The southern tip of the Strait has the presence of Singapore. It is important to note that this maritime waterway accommodates almost 25 percent of world maritime trade every year, and around 60,000 trade containers of varied types pass through the strait. The Strait of Lombok, which is present in the Indonesian maritime waters, could be seen as an alternative to Malacca. The problem with this alternative is that it can only accommodate very large crude carriers (VLCC); however, a major portion of China's oil cargoes is accommodated by this very important strait. Being fully cognizant of the maritime security vulnerabilities while navigating through these critical straits, China is making earnest endeavours to find out long term solution to decrease her dependence, however it is also a fact that announcing No Use of Malacca Strait may not be possible in near future, as building a bypassing maritime/ overland route would take some time (Storey, 2006).

China has adopted varied security measures to counter the threat of the blockage of the Malacca Strait. The modernization of the Chinese Navy to a Blue Water Navy is one such strategic measure. The presence of such a large navy is surely going to address the concern of security of Chinese energy shipments and will also help in conducting naval operations (out of area contingency tasks) away from the Chinese mainland. China is also focusing on the security of its maritime energy cargoes in the Middle East; steps include utilizing transit facilities as well as constructing new ports at required locations along the maritime route of energy cargoes. Such imaginative and well-thought-out measures are surely going to

address the problems to a great extent, as this would enable a controlled yet fluent flow of required cargoes through the Malacca Strait. The maritime security concerns also include the threat of piracy, and as a result, the importance of Anti-piracy missions cannot be ruled out. The formulation of a joint task force with the regional countries for ensuring the safety of the maritime cargo is a good step. The threat of maritime terrorism in the Malacca Strait waters is a live one, especially with the presence of US troops in these waters. Undoubtedly, there are many security concerns for the Chinese in this water; yet, the adoption of an all-encompassing maritime approach is likely to be a long-term solution (Shaofeng, 2010).
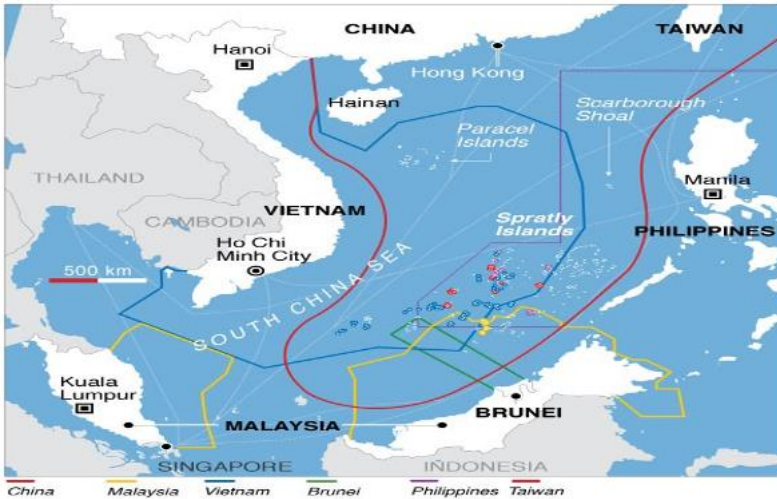

Figure 1.3: South China Sea Dispute
Source: http://www.geocurrents.info/

An overview of Chinese domestic consumption of energy indicates that Chinese oil demand increased from 2.3 million barrels per day (mb/d) in 1990 to 4.4 mb/d in 2000. The situation is further compounded in 2009, where the oil demand had jumped to 8.1 mb/d. Such a huge domestic consumption pattern highlights that by 2035, the country's oil demand will be soaring high to 15.3 mb/d. Correspondingly, US which at present is the leading oil consumer with 14.9mb/d, would be behind China in their energy consumption. It is pertinent to remember that Chinese sustained growth is directly proportional to availability of required energy cargo for domestic consumption (Shaofeng, 2010). The Chinese Communist Party sees country's economic growth as a top agenda, and this would require smooth supply of large quantities of energy cargos at home. China has embarked on a journey of Energy Diplomacy, yet it is pertinent to highlight that this has further increased energy consumption at home, as the requirement for rapid growth is pushing local consumers towards increased

demand. It is argued that Chinese growth is related to the provision of an uninterrupted supply of energy cargoes, which must traverse thousands of miles in the maritime waters from the Mediterranean to the Chinese mainland, thus further compounding China's energy security problems. Besides the maritime alternative routes, there is also a possible alternative in the shape of energy pipelines for land-based import. China must also adopt energy alternatives, which means that alternative energy could be employed to support and decrease its dependence on oil-based domestic consumption (Siklos, 2016).

4.8.   Territorial Dispute of the South China Sea

The Chinese mainland has contiguity to the South China Sea, which is one of the strategically important SLOC in the global maritime trade route, thus adding to the importance of this water body. The presence of underwater maritime natural resources, including natural oil, gas, and rich fisheries waters, has further led many ASEAN countries to raise their right of ownership. The South China Sea waters have contiguity with many regional countries, yet China, by virtue of its military and economic might, enjoys near naval supremacy in the region. There are states that could choose allies (e.g., the US), and this contestation over the underwater resources of the South China Sea may move into a serious conflict in the region, maybe at some point in time in the near future. Besides other islands, the Paracel and Spratly Islands emerge as of more importance and have become an area of maritime contestation. It is essential to note that it is not only the untapped underwater resources, but also the overall presence of these islands on the global SLOC, that makes them a focus of enhanced attention. Around 5.3 trillion USD is the volume of trade in a calendar year that passes through the South China Sea, which very much explains the reason for added importance (Choi, 2005).

The country that controls this important SLOC would also be able to influence the regional countries; thus, military control of the South China Sea is very important for any regional power to make others comply with its terms. China is making its military presence in the South China Sea at snail's pace by constructing artificial islands and converting them into military bases/ airstrips/and naval facilities. The regional countries and major stakeholders, including the U.S., have viewed this with great concern; yet, China is increasing its perimeter of security to ensure the protection of its energy cargoes at a slow yet steady pace. Vietnam, Taiwan, Brunei, Malaysia, and the Philippines are among those ASEAN countries that have laid their claim to the South China Sea waters near their coastal lines. Figure 4.4 indicates the claims made by different countries. There are places where more than one country has made a claim to the

same water body (Choi, 2005).

It is only the Philippines and Vietnam that have challenged Chinese control over the contested waters of the South China Sea. Vietnam and China have been in a contest since 1974 and 1988, over the water of the South China Sea. Vietnam had to yield and give away control of the Paracel and Spratly islands to China, after the latter launched successful naval operations. There were many casualties because of these skirmishes between the two countries. The Philippines also raised the matter in an international court and obtained a court opinion in their favour; however, China still claims ownership of the maritime territory (Choi, 2005).

China has employed a delaying tactics strategy in the South China Sea contested waters and has avoided implementing the court decision (Fravel, 2011). There has been an increase in Chinese military/ naval presence in this important SLOC, and at certain locations, China has also deployed ground/ aerial platforms to cater for any future developments. It can be argued that China is buying time to solidify its military/ naval presence in the waters of the South China Sea, thereby denying regional countries the opportunity to challenge its naval supremacy. The dawn of the 21st century has seen a further increase in Chinese presence in the South China Sea waters. This can be attributed to the military and economic might of China at the regional level, and now China has started dictating terms where required to protect its national interests. The US presence has further exacerbated the ongoing maritime power contestation in the region, and so far, China has emerged as the winner, owing to the proximity/ contiguity of the Chinese mainland to these waters (Fravel, 2011).

There is no denying the fact that modernization, which is in progress for the People's Liberation Army and Navy (PLAN), is not only aimed at settling down the territorial claims of the South China Sea waters, but the country is looking towards the strategic objective of securing the SLOC to address its strategic vulnerability of maritime trade passing through this artery. The Chinese presence and adopted strategy have further enhanced the trade competition in the region. It is not only the regional countries but other international stakeholders, including the US, who want their share of the pie in this region (Morton, 2016). China is making headway in the region and, in the process, is making its presence felt on the international chessboard of global geopolitics. The US has felt the structural stresses the most, owing to China's rise, and has correspondingly labeled China as a revisionist power. The US has also blamed China for employing coercive economic and military tactics to further its gains in the region. On the other hand, China's grand strategic design is reflective of its desire to be acknowledged as a rising power, which is well capable of protecting its

national interests in its coastal region (Morton, 2016).

4.9.   US and Maritime Dispute of the South China Sea

The Chinese mainland has contiguous borders with two water bodies, its Southern and eastern borders, namely the South China Sea and the East China Sea, respectively. However, China does not have free control over both, owing to claims made by various countries. The South China Sea is strategically more important. However, this maritime contestation not only involves regional countries, but also extra-regional forces, such as the US and Japan, which are interested in maintaining their influence in these waters (Stashwick, 2017).

There are one hundred and eighty (180) different features (above the surface), including reefs, shoals, rocks, and sandbanks in the South China Sea. There are underwater features also present, which are geographically located at four different locations in the seawater. There are many countries that lay their claim to the water of the South China Sea, including the Philippines, Vietnam, Malaysia, Taiwan, and Brunei. Taiwan is one country, interestingly, which has made claims to both the above-surface and the under-surface features of the South China Sea. According to maps held by China, which highlight the nine-dash line in the South China Sea, approximately 80% of the sea is claimed by China. This topographical map is not accepted by the countries that have laid claims to these waters, and as a result, this issue is a permanent source of concern between China and the ASEAN countries (McDevitt, 2014).

There are different types of claims that are made by countries over rocks in the sea, and in particular, conflicts regarding fisheries rights in certain waters. The presence of hydrocarbon reserves at the seabed is also a source of contention. The security of strategic SLOC passing through the South China Sea also brings into play the factor of outside forces (especially the US), which likes to maintain its influence in these waters. As per the United Nations Convention on the Law of the Sea (UNCLOS), any country can claim the surface and underwater resources of a particular water body which is contiguous to its mainland; China's claim is understandable in this context (McDevitt, 2014). However, there are other ASEAN countries that lay claim to these resources in light of the same UNCLOS. However, China is not ready to entertain its claims, and this continuous contestation between China and the claiming countries is a warning sign. The US, as a global power and a key player in trade and alliances in the region, is also interested in maintaining its presence; thus, freedom of navigation operations are being conducted in the South China Sea. China, however, sees these navigation operations as hostile provocation by the US; a continuous maritime power contestation is thus in progress (Stashwick, 2017).

The leveraging of military power/ presence in the South China Sea could be a possible scenario for the potential resolution of this dispute. Both countries can work out a solution whereby China's new status may be accepted, and the US is also able to exert its influence in the region in terms of maritime security and trade/energy cargoes. Such an accommodation may force the Chinese to stop the deployment of ground and air assets at the newly constructed bases in the Spratly Islands. The Chinese force projection is so far defensive in nature, as none of the air-to-air and ground-to-air missiles, fighter jets, and air defence assets have been deployed in these islands. There is a presence of ground to air missiles and other ground assets (mainly US allies), and these can be used in the future towards a naval blockade of South China and the East China Seas. It is pertinent to mention that these force projection capabilities of the US are not yet fully operational, and these can play an important role in negotiations, as Chinese counterparts can be asked to refrain from the same and vice versa (Stashwick, 2017).

The Chinese government has chosen to maximize its perimeter of security, which aligns with Defensive Realism. The Chinese encroachment in the South China Sea is a peaceful form of coercion, as it is progressing slowly in accordance with the international environment and available space. By adopting such a wiser course of action, China is not only keeping things calm, but the land mass (surface and submerged) in the South China Sea is also improving in favour of China (McDevitt, 2014). The US is conducting freedom of navigation operations under the UNCLOS, which is seen as highly proactive and offensive by the Chinese and sees these actions by the US as something that is hurting the peace in the region. There have been challenging circumstances for the political and diplomatic leadership of both countries, with naval ships and air assets coming into close proximity, which may contribute to heightened escalation in the future (McDevitt, 2014).

It is evident that the US desires to project its naval presence in the South China Sea, but this non-coherent approach is not yielding the desired results, and chances of further escalation do exist in the region (Hastings, 2011). An analysis of US military assets in the Indo-Pacific region does highlight that a proper command structure is absent, which could be seen as overall responsible for the region. Although there are assets available in the region, their suitability for the task is a serious source of concern. It seems that the US does not desire to project force in this region, and the effectiveness of these assets under a unified command is not given due attention. Such an approach in the long term will pose serious implications for the concept of a Net Security provider in the region (Hastings, 2011).

4.10.   Chinese Response to U.S. Strategy of China's Containment

Though there have been a number of U.S. National Strategies to counter the Chinese rise, the Chinese response follows suit. The Chinese adopted strategy has two main prongs: the economic prong and the Military one. The succeeding paragraphs would discuss these one by one.

4.10.1 China's Re-invigorated Economic Ties with ASEAN Countries

Following the regional financial downturn, China was able to capitalize on the economic opportunities presented by the post-crunch period. China made serious diplomatic efforts to strengthen economic ties with the ASEAN states. China, realizing the economic potential of the region, took a bold step towards signing the agreement of "ASEAN-China Free Trade Area (ACFTA)" (Tongzon, 2005). This initiative, coupled with a cooperative Chinese posture, marked the beginning of a period of economic cooperation with regional countries, and trade volume increased to $24 billion by 1998. The economic dividends for the region reached new heights, with an outstanding rise in trade figures from US$78 billion in 2003 to US$444 billion in 2013. It can be argued that the region also rose in tandem with China's economic growth and fully benefited from the process. The future of Chinese economic ties with the regional countries is very bright, and a trust-based relationship would take this economic cooperation to even higher heights in times to come (Ba, 2003).

4.10.2 Chinese One Road (OBOR Economic Initiative)

The status of China's global economic power can be attributed to its sustained economic growth and the visionary leadership of the country, which enables a free trade environment. The resultant economic strength has put the country on a path whereby it can utilize its economic viability to drive forward new economic projects for the ASEAN countries (The Economic Times, 2017).
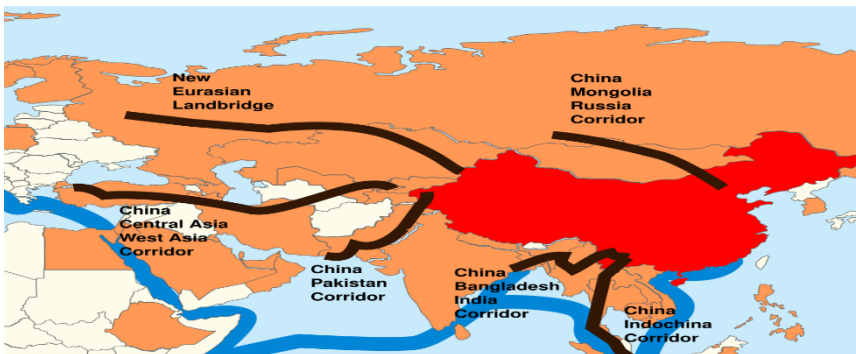

Figure 1.4: Belt and Road Initiative
Source: https://besacenter.org/perspectives-papers/china-mediterranean-silk-road/

The Chinese grand vision of regional connectivity has seen its true manifestation in the shape of the concept of "One Belt One Road (OBOR)". The engine of Chinese economic growth is being run by her consumption of huge energy cargoes, and there is a dire requirement to explore new avenues for meeting this rising demand, and OBOR is going to get China the same in a visionary way. The presence of the US in the South China Sea, closer to global SLOC, and the fear of a blockade at Malacca have made Chinese policy makers adopt imaginative ways and means to protect the fast growth while staying below the threshold of any conflict (Stratfor, 2017).

The OBOR not only affords regional connectivity and boosts economic activity in the region, but also secures China's trade route from mainland China to the Mediterranean Sea, and overland trade routes will be secured in the process (Stratfor, 2017). Chinese trade volume with the regional countries has increased to $14.6 billion of FDI in 2015, double that of 2014 (The Economic Times, 2017). This is not the end of it, China has set its eyes on an astounding financial objective of US$1 trillion trade by 2020 with its regional partners.

5. CHINA'S KINETIC PRONG TO COUNTER US- STRATEGY OF STRING OF PEARLS

The maritime security vulnerabilities of China, particularly in terms of SLOCs in the South China Sea and a potential blockade of the Malacca Strait, have been a source of serious concern for the country. To ensure the security of maritime energy cargoes from the Mediterranean Sea to mainland China, China has adopted a strategy that involves "nodes of influence" in the broader Asia Pacific region. Owing to the long distance the critical energy cargos must travel, Chinese thinkers have thought to create nodes of influence in friendly countries in the shape of coasts, which could not only offer protection at the time of need but could also serve as logistic bases for refuelling/ deployment/and arming of the Chinese Navy in the near future (Khurana, 2008).

India has been making a hue and cry over these Chinese nodes of influence in the Indo-Pacific, and this concern is quite understandable. India has termed it as encirclement of India, with grand strategic designs by the Chinese. This Chinese strategy, since 2005, is famous as the String of Pearls, whereby the pearls are in different friendly countries. These ports include Myanmar port, Chittagong port in Bangladesh, Hambantota port in Sri Lanka, and Gwadar port in Pakistan. Here again, China is expanding its security perimeter at a slow pace, and this strategy aligns with the Defensive Realist approach as outlined by Waltz (Khurana, 2008).

The maritime security vulnerability of the Malacca Strait offers an alternative in the form of the China-Burma pipeline and also the construction of a railway line from China to ASEAN countries. Such mega projects are not only going to enhance Chinese connectivity with the region but also ensure the availability of alternative means for transporting energy shipments (Zhang, 2008).

Figure 3: String of Pearls
Source:http://www.futuredirections.org.au/publication/string-of-pearls-redux-china-india-and-a-cambodian-base

5.1.   China's Blue-Water Navy

The US has been the sole superpower over the globe for many decades and has enjoyed its control of the global trade routes/ maritime SLOCs by pre-positioning its naval assets. Currently, the US feels threatened by China's rapid economic growth, and the resultant challenge to US hegemony in the global arena is rapidly altering the decades-old US supremacy. The modernization of the Chinese armed forces is occurring at a rapid pace and is likely to alter the power balance in the blue waters. China is looking forward to projecting its naval power beyond its mainland coasts. The simmering backyard of China, with regional disputes, is a befitting response by the US, in an attempt to keep Chinese force projection in check. The Chinese Blue Water Navy concept is likely to take its final shape by 2030, and if it materializes, it would pose significant challenges to US maritime global/ national interests. The US is closely monitoring the situation, and there is no denying the fact that Chinese anti-access/ area denial platforms (once fully operational) are going to pose serious security concerns for the US. The naval assets of the US in the region may require a reevaluation of their response mechanisms and options against the looming Chinese threat. A fierce maritime power contestation between the two powerhouses of the world is a writing on the wall (Cronin et al., 2017).

The Chinese leadership has paid particular attention to the rapid modernization of the PLAN, and a substantial amount of funding has been allocated to meet the desired targets at an earlier stage (Saunders et al., 2011). The Chinese navy is attempting to project power beyond its coasts, and the deployment of three ship task groups for maritime duties in the Gulf of Aden is a testament to this effort. This Chinese strategy differs from the US, which has deployed Carrier Strike Groups to patrol the global blue waters. China is making steady progress, and focus has been on submarines, which are more than surface vessels. China is also deploying unmanned cruise and ballistic missiles with less surface signature. The Chinese dream of a blue-water navy aligns with its desire to establish itself as a global player and a strong military power. The ultimate rise of China is seemingly a writing on the wall, and at present, "the dragon is just stretching her legs" (Saunders et al., 2011).

5.2. China's Naval Buildup for Naval Operations beyond Mainland China

The ongoing fast-paced modernization of PLAN is not only for projecting power in the region to protect energy cargoes, but the country is also looking forward to a role beyond that. A role that has the aspirations of becoming a global power, thereby shouldering global responsibilities. Though China is building a potent naval force able to operate away from Mainland China, there will be five challenges for which an answer would be required before embarking upon such a journey. These are distance, duration, capacity, complexity of coordination, and hostility of the environment. While operating away from base, distance becomes a problem for a navy with no nearby bases to cope with the required logistics. The crew would require dedicated medical care, food, fresh vegetables, and portable water in terms of logistics.

The Chinese modernization plans will take some time to execute, and similarly, the capacity to conduct large-scale operations away from Chinese coasts will also take some time. It will take some time, but once the Chinese navy, like the US, is recognized as a global navy; however, efforts by the PLAN are underway at a rapid pace to make this dream a reality. It will be through Blue Water Navy, in the future, that China will be able to compete with the US in the blue waters and protect the vital maritime national interests of the country across the globe (Yung et al., 2010).

6. KEY FINDINGS

6.1. US and China in the Changing Global Order

As the emergence of new powers and influential non-state actors has inexorably altered the global distribution of power, the order largely constructed by the

United States after World War II remains largely in place. Moreover, the United States is growing more reluctant to use military force to maintain its position as the world's leader. The United States' standing and authority have been undermined in recent years by China, Russia, and other lesser regional powers who have exploited this reluctance (Stares et al., 2020). Assisted by scholars and intellectuals, the Chinese party-state is conducting extensive research examining what a China-led world order might look like. To achieve this, the party-state has rejected Western models and instead re-examined historical and traditional Chinese concepts of empire-tianxia (everything under heaven) and the tributary system (Rolland, 2020).

It appears that Beijing favours a partial, loose, and malleable hegemony. Hegemony implies a sphere of influence rather than ambition to dominate the world; thus, it is partial. It is also loose at the same time, as Beijing does not seem to envision an absolute or direct control over foreign lands and governments. Hegemony is also malleable, as countries under Chinese hegemony are not strictly defined by geography, culture, or ideology, as long as they respect China's dominance (Rolland, 2020).

Over the past few decades, the United States has taken an active role in global institutions and sought to establish close relationships with allies who share its views on democracy and the world order (Council on Foreign Relations, 2023). Policy makers in the United States appear to have remained obsessed with Rimland Theory, according to which control over Southeast Asia was a prelude to an aspired global power (Darling, 1971). As a result of this theory, the US wished to obstruct the free movement of ex-USSR naval vessels in Southeast Asian waters while at the same time ensuring that it could move its own ships in case of hostilities.

6.2.   Formation of Unipolar World - The Emergence of New World Order

It is the United States' goal to create a unipolar world, dominate international affairs, and maintain significant advantages in politics, economics, science and technology, and military affairs for a very long time (Hall, 2021). Due to globalization, interconnectivity, and interdependence, unlike in any previous era, America's unipolar dominance of the landscape bore the seeds of its own erosion (Ali, 2017). China's grand strategy is profoundly affected by unipolarity. A direct confrontation with the United States is too costly and counterproductive, given the unipolar structure of power. However, in the near future, China cannot afford to be in Washington's strategic spotlight. However, to ensure its own security, Beijing must minimize international concerns regarding China's growing power while closing the power gap with the United States (Wang, 2010).

There is a good chance that China's competition with the United States in security will intensify as it becomes more powerful. Over the next few decades, the structural contradiction between the existing hegemon, which aims to preserve Asia's balance of power, and the emerging power that may be able to dominate the region will become even more evident. In the future, unipolarity will disappear. One of the most challenging tasks in the 21st century will be to manage the US-China security competition properly (Wang, 2010).

6.3. Repositioning Towards Asia Pacific

China's economic and military rise prompted the U.S. to launch its "pivot to Asia" strategy in 2011, aiming to counter China's significant structural changes. As a result of this strategy, the U.S. has rebalanced its Middle East policy and shifted its focus. Since the pivot, the United States has increased its presence in the Indo-Pacific and strengthened its cooperation with allies. It is important to note that this strategy has limitations, particularly in terms of funding. Because of this strategy, US-Beijing's relations have deteriorated, as the pivot has been a source of tension between the two nations (Poulin et al., 2021).

As a threat to American global hegemony, China has grown its economy and developed its naval capabilities over the years, surpassing the United States to become the world's largest navy. Therefore, the United States considers China to be its biggest adversary. It is therefore imperative that the United States curbs China's aggression in the Indo-Pacific and halts its plan to expand its capabilities and interests beyond its maritime borders by establishing aggressive naval presences in the Indian and Pacific Oceans to maintain the balance of power. By forming diplomatic and military alliances with other strategic partners, the United States can gain a substantial and long-standing position in the Indo-Pacific region (Randev, 2022).

6.4. Chinese Grand Strategy Towards Rise

As a result of China's rise, the United States is facing a challenge unlike any other. The US has not faced any adversary or coalition of adversaries that has achieved 60 percent of its GDP in more than a century. At the height of its economic power, neither Wilhelmine Germany during the First World War, Imperial Japan, nor Nazi Germany during the Second World War crossed this threshold. Nevertheless, Beijing itself quietly reached this milestone in 2014. China's economy is already 25 percent larger than the US economy when the relative price of goods is considered. Clearly, China is the most significant rival the United States has faced, and the way Washington handles its emergence to superpower status will determine the direction of the century to come (Hall,

2021).

6.5. One Belt One Road (OBOR)/ Maritime Silk Route

As part of the "One Belt, One Road" initiative, China has also proposed the "Silk Road Economic Belt" and the "21st Century Maritime Silk Road" (OBOR), which is an even broader and more ambitious project. OBOR will be financed by the Asian Infrastructure Investment Bank (AIIB), which was formed by China. The Chinese economy is transitioning from an export-driven to a consumption-driven growth model. Following the 2008-09 global financial crisis, which significantly weakened Western countries' ability to absorb Chinese manufacturing products and invest in developing countries, this process accelerated. Besides investing in developing countries, China also invests in developed economies (Zhu, 2015).

6.6. South China Sea Dispute between China and – US

Due to its geographical location at the meeting point of the world's most intensive maritime routes, the South China Sea plays a very important strategic and economic role. The South China Sea is surrounded by nine major nations: China, Vietnam, Cambodia, Malaysia, Thailand, Indonesia, Singapore, the Philippines, and Brunei. Several regions of the South China Sea fall under the sovereignty of these Asian countries since China claims sovereignty over large parts of the sea, has built artificial islands in it, and is militarizing the region. Due to this, the United States intervened to form an alliance with other Asian countries bordering the South Sea, sending warships and aircraft to nearby regions. To make sure all international parties had access to maritime and air navigation routes, the United States sent its warships and military aircraft to nearby regions. The Asian and Western parties are afraid that this region may gradually become a "real conflict" point, and any clashes there could lead to dire consequences for the entire globe (Zubaidi, 2022).

6.7. China's Blue-Water Navy

The Chinese desire to be seen as a global superpower on par with the United States drives the need for modernization and an increase in Chinese sea power. In addition to countering US influence and regaining preeminence within maritime Asia, the Chinese aim to reunify with Taiwan, protect their rapidly growing economy by securing crucial trade routes and energy routes, and secure critical trade routes and energy routes. Besides using this blue water force for power projection and protecting maritime interests, China will use the Pacific as a new Great Wall to enhance its overall security. The Chinese navy will be able to extend its defense of mainland China by utilizing blue-water capability (Pharis,

2009).

6.8. China's Out of Area Naval Operations

China's out-of-area deployments, although not new, herald another era in PLAN operations. The nature of these operations has thus far been cautious and incremental and can be expected to continue in that fashion for the foreseeable future. If China follows our predicted continuum of operations, it will steadily progress toward capabilities in major combat operations outside its area of operations. Before that happens, however, it will need to undertake significant efforts to improve ship and aircraft maintenance, food preservation, medical care, and logistics supply (at long distances). Most importantly, China will have to develop a network of facilities or bases its forces can rely on for maintenance, repair, and replenishment. In the absence of such a network, China will not be able to take part in major combat operations at distances far from home (Yung et al., 2010).

6.9.   China's Pursuits of Overseas Security

As China protects its interests abroad, several implications arise for the United States. The uniformed PLA personnel may not be sufficiently representative of China's role in other countries' security affairs for analysts looking to understand Chinese involvement. The Chinese efforts to promote security for its overseas interests need to be viewed from a broader, more expansive perspective. China is likely to collaborate most readily with the United States in areas involving extremely limited commitments, low escalation risks, and opportunities to bolster its international reputation. U.S. military officials may discover that China employs a variety of military and nonmilitary forces to advance its security interests in the coming years. Identifying areas of collaboration and competition between U.S. and Chinese interests can help planners anticipate possible collaborations (Heath, 2018).

7.   CONCLUSION

The significance attached to the Indo-Pacific region can be attributed to its geographical location on the global map and the rich underwater maritime resources it houses. The Indo-Pacific region attracts numerous global investors due to its large population and the resulting thriving trade markets. The Chinese factor of a fast growth rate has also helped neighbouring regions benefit in the process and enjoy the high ride of economic prosperity. The national interest of the US prompted policymakers to make a necessary shift in their formulation of national policies for the region. Correspondingly, since 2009, a growing interest in the Asia Pacific by the US has been observed, and it has been reflected in the

policies of the Pivot to Asia and Rebalancing to Asia under President Barack Obama. Under President Trump in 2017, the term Asia Pacific was replaced by a more focused Indo-Pacific. The year 2022 saw the adoption of the term Free and Open Indo-Pacific. These all-policy documents reflect the visible shift in US focus towards the region, ostensibly owing to the economic rise of China.

There is no doubt that self-interest plays a significant role in international politics, but it manifests itself in various ways, not all of which are dishonest. The 'China threat' theory and the idea that China is America's 'other' could be more effectively addressed with a better cultural and political understanding between the U.S. and China. Despite all the attention given to China's rise and its consequences, "the United States still has a very imperfect understanding of China's power and motivations, which fuels tension as much as Chinese actions." Conflicts of interest and ideals are inevitable, but if they are dealt with pragmatically rather than prematurely, they could ease Sino-U.S. relations. In the 21st century, two powers will most likely coexist in peace and work together through a policy of engagement. An increased level of engagement between the parties will lead to a deeper understanding of future issues (Fergusson, 2012).

The maritime security vulnerabilities of China include strategic SLOC in the South China Sea and the threat of a potential blockade of the Malacca Strait; however, China is not sitting idle. China is making tangible progress in addressing its security concerns in the South China Sea by constructing artificial islands; however, this extension of its security perimeter is being achieved at a very slow pace. China is keeping its efforts under the threshold and not inviting any kinetic response from any regional or extra-regional force, which indicates how carefully it is treading its path. The implementation of the mega economic project of OBOR is earning China confidence and cooperation of its neighbouring countries. China has earned the reputation of a regional connector through the adroit application of visionary trade policies, coupled with well-planned regional connectivity corridors.

The sudden withdrawal of the Trans-Pacific Partnership (TPP) and unfulfilled economic promises have made the regional countries suspicious of the intended US policies for the region. The promise of a net Security provider seems to be fading from the region, and marginal influence to guard strategic SLOCs passing through the South China Sea will make US allies fall into the Chinese lap in the times to come. China, by virtue of its contiguity with the maritime waters of the region, has not only accrued the name of regional connector, but it is also now serving as the main security provider to global trade SLOC. The fast-paced modernization of PLAN is yet another step in the same direction, as China prepares to assume its international maritime role in the Indo-Pacific. The Blue

Water Navy, being built by China, is not only going to project its force but also eyeing force protection missions at the hour of need.

China, through its shared vision of economic prosperity, is not only boosting regional economies, but at the same time, the contest over water in South China has become less problematic, as the economic advantage is prompting regional countries to temporarily set aside water disputes. The US, seemingly, is not fully involved in the region militarily and economically, as if Washington just wants to project its force but not seek any direct confrontation in the South China Sea waters. This amounts to acknowledging Chinese power/ presence in the region.

To conclude, it is argued that ongoing maritime power contestation between the established power (US) and rising power (China) is likely to continue unabated in times to come, short of a conflict. This is a struggle for domination by one and rising to the occasion for the other. China is a reality now; a rising power and future would see the dragon flexing its wings over the entire range of blue waters. It is reckoned that contestation at a few places and cooperation at others would be the key to saving the two powerhouses falling prey to the infamous Thucydides Trap.

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Smart Universities: A Concept Overview of Adoption Challenges for Historically Black Universities in South Africa

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Abstract

Universities today are experimenting with AI and big data to enhance the student experience on campus; however, from a South African perspective, the question is: can historically black universities adapt to this rapidly evolving higher education environment? This paper employed a qualitative research method to answer these questions, and secondary data were sourced from a review of current literature. The paper found that infrastructure challenges, a lack of skills and development, and limited resources were major factors hindering historically black universities from adopting the concept of a smart university. Historically black universities offered minimal, if any, tech-focused courses, which prevented them from acclimating themselves to the elements of the 4IR. The implications have been that historically black universities will struggle to catch up to previously white universities in transitioning their campuses from the traditional model of higher education to the concept of a smart campus.

1. INTRODUCTION

The revolution in higher education is currently underway, and at its core, it represents a significant shift in the role of technology within the university setting. An integral component of this change is the establishment of "Smart Campuses," which involves integrating advanced technological solutions to enhance the quality of education, communication, security, and overall campus life (Hartman Advisors, 2023). The emergence of smart campus technology promotes a highly interconnected, interactive, and intelligent educational setting. The system leverages cutting-edge technologies, including artificial intelligence (AI), Internet of Things (IoT), Chat GPT, big data, and machine learning, to deliver personalized educational experiences, facilitate real-time communication, and streamline administrative processes.

This technological transition enables higher education institutions to respond effectively to evolving student requirements and expectations (Hartman Advisors, 2023). The process of digitizing learning methods, utilizing virtual reality (VR) classrooms, and implementing AI-powered, tailored learning aids is

no longer considered a futuristic idea. Smart campus technology has the potential to completely transform the way institutions operate and provide education, resulting in a more interactive, productive, and inclusive atmosphere.

The apartheid government in South Africa established historically black universities (HBCUs) to cater to black students who were prohibited from attending racially segregated white-only universities (Iilorah, 2006). These institutions received inadequate funding compared to the universities that exclusively serve white students. The insufficient funding had a detrimental impact on their output, namely in research and postgraduate development. Following the abolition of apartheid and segregation at universities, Historically Black Universities (HBUs) face additional challenges alongside the enduring effects of the apartheid era. They continue to get insufficient funding, and the student body primarily consists of individuals from economically disadvantaged and rural backgrounds (Iilorah, 2006). However, with the changing landscape of higher education and the introduction of technology in teaching and learning, debates and arguments have emerged in the higher education domain in South Africa. Central to the argument is whether historically black universities (HBUs) can integrate this technological revolution into their teaching and learning, considering the many structural challenges they face. The advancement of technology has been progressing swiftly over the past few decades, particularly in the realm of information and communication technology (ICT). Information and Communication Technology (ICT) has significantly transformed several areas of society, including business, healthcare, entertainment, and education (Sharma, 2023).

Technology has become a crucial component of higher education in the twenty-first century. According to Sharma (2023), it has revolutionized the methods of student learning, teaching practices, and operational procedures of educational institutions. Technology has created novel opportunities for accessibility, excellence, and ingenuity in higher education. Therefore, this paper examines the concept of a smart university, its components, and the challenges that historically black universities in South Africa face in integrating the components of a smart university into their teaching and learning. The following question guides this paper: What are the benefits of a smart university, and what adaptation challenges can historically black universities in South Africa face in the quest to integrate this concept into their daily operations?

2. MATERIALS AND METHODS

This paper employed a qualitative research approach, utilizing a semi-systematic review method. The growing debate and arguments about the concept of Smart universities in South Africa's higher education landscape have begun to take centre stage in higher education policy debates. While the authors would have preferred an empirical study, time and financial constraints necessitated a semi-systematic literature review, with the aim of carefully synthesizing the literature to draw meaningful conclusions. With the above, the methodology used for this paper, including how articles were found, included, and excluded, is described in this section. In this paper, a systematic literature review research strategy was chosen. According to Davis et al. (2014), referenced in Snyder (2019), conducting reviews transparently and reproducibly is what the systematic literature review as a research method aims to achieve.

Above all, it enables the selection of articles to incorporate or omit from this paper (Snyder, 2019). Unlike the other review strategies, this research strategy enabled the critical evaluation of the information gathered from the included articles. During the process, reliable conclusions can be reached (Moher et al., 2009), as cited in (Snyder, 2019). Furthermore, Gough's (2007b) nine phases of systematic review, as cited in Bearman et al. (2012), were employed in implementing this research strategy. These phases include the following: formulating a review question, specifying inclusion and exclusion criteria, formulating a search strategy, screening articles, disclosing the search strategy's outcomes, extracting pertinent data from included studies, evaluating the methodological quality of included studies, synthesizing included studies, and formulating conclusions from a critical review of the included studies.

Figure 2: Systematic review steps

Source: David Gough (2007b) cited in (Bearman et al., 2012)

The above diagram illustrates how relevant data for this paper were collected. It describes the steps the author undertook to look for the data, link it to the theme of this paper, assess its usability, determine how data was included and excluded, and finally, determine how the collected data was synthesized to consolidate the argument. This paper adhered to the following criteria because the systematic literature review process necessitates knowledgeable and strict inclusion and exclusion criteria of studies in its undertaking:

2.1.   Inclusion criteria

1. The databases Scopus, JSTOR, Science Direct, Ebscohost, Elsevier, and Web of Science were searched, and articles were chosen. – Their databases were found to have many articles published on the concept of smart universities in South Africa, hence their usage

2. We chose papers published in peer-reviewed journals between September 2023 and the year 2000. -The debates around smart universities in a 41R era in South Africa's higher education sector began to gain prominence around the year 2000 and have grown considerably over the last three decades, hence the use of these years

3. We only included research articles that were written in English and published; articles written in other languages were not included. Translation from another language other than English would have been time-consuming, hence the authors felt English articles were better suited in this context.

4. We used the following search terms in the aforementioned databases to find articles to include (phase 3)."Smart Universities, The 4IR, Higher education in South Africa, Historically white (Urban) Universities and Historically Black (Rural) Universities, and Technology in Higher education in South Africa. The words were key in helping navigate the plethora of literature available.

5. Nevertheless, the authors also used reliable online news websites to obtain information because there is a dearth of scholarly research on the debates around smart universities in a 41R era in South Africa's higher education sector.

To enhance the literature search, the author went to each of the databases listed above and typed in the keywords used in this paper. This displayed the available publications that related to the keywords. The authors then looked at the abstract to scan for critical arguments in line with the paper's aim. If the abstract presented an argument related to the paper's aim, the author would download the articles and look for similar arguments and debates. Therefore, if

the abstract did not present an argument concerning the debates around smart universities in a 41R era in South Africa's higher education sector, it was not considered. The data collected was thematically analysed.

The authors looked at the keywords of each article concerning the theme and main research question of this paper. After that, similar arguments were grouped together and further analysed through a narrative literature approach. For example, articles that talked about smart universities in South Africa's higher education sector were grouped together. After this, the arguments of these articles were compared to the argument of the paper, thus allowing the authors to identify gaps. Subsequently, this process enabled the paper to draw meaningful conclusions based on the shortcomings of existing published literature.

2.2. Exclusion criteria

The sources that did not discuss the debates surrounding smart universities in South Africa's higher education sector were excluded. Sources published prior to 1998 were omitted. The article acknowledges the limitations of the above research method. Firstly, the search was limited to five databases; hence, perhaps, a more comprehensive search of different databases would have yielded more information to help better consolidate the argument of this paper. Secondly, an empirical study employing questionnaires or interviews may have yielded firsthand knowledge, thus consolidating innovativeness and reality in the paper's argument. However, the author analysed the data effectively to ensure innovativeness and uniqueness despite these limitations.

3. THEORETICAL FRAMEWORK

This paper will apply the Technology push theory to further delve into the current debates around smart universities in South Africa's higher education sector. The technology push is a theory that suggests technological advancements drive innovation and growth, with innovation in turn driving market growth and technology driving innovation. This approach pushes technology innovation to the market through production and marketing (Nuñez-Jimenez, Knoeri, Hoppmann, & Hoffmann, 2019). According to Hötte (2023), a Technology Push arises when technological breakthroughs enable the development and commercialization of novelties. The technology push is a term used to describe an approach in which technology innovation is pushed to the market, from internal development through production to marketing (Isoherranen & Kess, 2011).

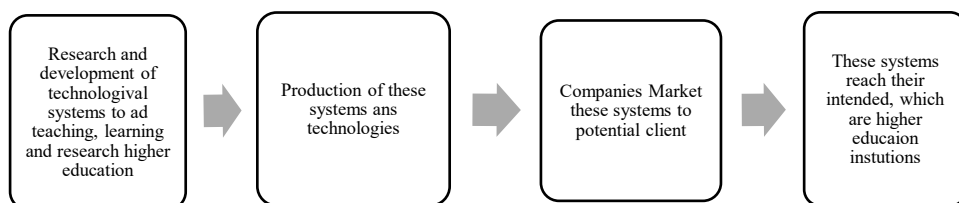Figure 1: Technology push technology transfer model

| Research and development | → | Production | → | Marketing | → | Market |
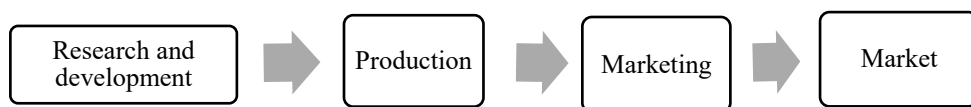
Source: Momcilovic et al. (2013)

Applying the technology push theory within the above context, Momcilovic et al. (2013) explain that the Technology push is a technology-driven approach where an emerging technology or a new combination of existing technologies provides the driving force for an innovative product and/or solution to a problem in the market. The sequence of phases in the technology push strategy is presented in Fig. 1. This strategy is initiated by a discovery or an idea that originates from basic research when the researchers realize the advantages of the new technology. The research and development phase involves designing a new product and creating prototypes for further testing.

After the successful testing, different manufacturing methods are analysed, and the most efficient one is adopted for the final product. Finally, the product is promoted to the market in the marketing phase. In short, technology-push product development is based on the belief that the producer recognizes a market need even before the market does and practically educates the customer. A primary characteristic of this approach is the increasing importance of science in the innovation process and the strong correlations between R&D and innovative output. The diagram below illustrates how the Technology Push Theory can be applied to higher education.

Figure 2: Applying the Technology push theory in higher education

| Research and development of technologival systems to ad teaching, learning and research higher education | → | Production of these systems ans technologies | → | Companies Market these systems to potential client | → | These systems reach their intended, which are higher educaion instutions |

In the context of higher education, several events have disrupted its offerings over the past three decades. Most recently, the novel Coronavirus forced higher education institutions to seek new innovative ways to deliver higher education. The pandemic forced many higher education institutions to close and transition to remote learning. However, it is vital to note that in some countries, especially in the developing world, home learning has never been the focus of institutions of higher learning. Rather, institutions of higher learning have

focused on the traditional way of teaching and learning, which involves face-to-face classes. However, the pandemic forced online learning, which was technologically driven; applications such as Zoom, Microsoft Teams, Moodle, and Blackboard became vital in the push to ensure continuity in the higher education sector in the face of an unrelenting COVID-19 pandemic.

Barakabitze et al. (2019) argue that many universities globally are already embracing 4IR technologies, but most universities in Africa, including South Africa, have not kept pace with this trend, especially HBUs.

3.1. Brief history of higher education in South Africa

During the apartheid era, the system of higher education in the Republic of South Africa was intentionally structured to maintain the dominance and advantages of the white minority in power (Bunting, 2006). The Bantu Education Act of 1952, for instance, guaranteed that black South Africans would receive an education designed to restrict their educational opportunities and, hence, confine them to the labouring class. Case, Marshall, McKenna, and Mogashana (2018) express their dissatisfaction with the development of a two-tier higher education system in the country because of apartheid. The first tier was reserved for the privileged and affluent individuals who had the opportunity to study in institutions that were given priority by the apartheid system from a developmental standpoint. These institutions were characterized by their infrastructure and skilled workforce, and were primarily located in urban areas. The second tier was designed to accommodate the historically marginalized groups, primarily the African population (black South Africans), Indians, and coloureds. They were situated outside the city, faced structural difficulties, and were not seen from the same perspective as their white counterparts (Case et al., 2018). South Africa is home to 11 historically black universities that have significantly contributed to the growth and progress of the country's higher education system. The universities included in this list are: The University of Bophuthatswana, which has recently been renamed the North-West University (NWU); the University of Durban-Westville (UDW); the University of Fort Hare; the Medical University of South Africa (MEDUNSA); the main branch of the University of the North-Turfloop; the University of the North-Qwaqwa; the University of Transkei; the University of Venda (UNIVEN); Vista University; the University of the Western Cape (UWC); and the University of Zululand (UNIZULU) (Badat, Barron, Fisher, Pillay & Wolpe, 1994 in Subotzky, 1997). After the abolition of apartheid in 1994, there were a total of 36 higher education institutions in the country. Out of this total, ten were universities with a history of being disadvantaged, and seven were Technikons with a history of being disadvantaged. These institutions

were specifically intended for the education of black South Africans. On the other hand, ten universities and seven Technikons had a history of being advantaged, and they were designated for the exclusive development of white South Africans. Two remote learning institutions provided education to individuals of various racial backgrounds.

Despite 30 years since the end of apartheid and the establishment of multiparty politics in South Africa, Carolissen and Bozalek (2017:346) argue that the higher education sector, along with other levels of education, remains profoundly influenced by its apartheid history. South Africa boasts 26 state universities, which accommodate a student population of approximately one million. Additionally, over 50 higher education training schools, sometimes referred to as TVET colleges (Technical and Vocational Education and Training), enroll approximately 700,000 students. Various private colleges accommodate an extra 90,000 pupils (Tjønneland, 2017). The founding of the South African College in Cape Town in 1829, catering specifically to those of European origin, marked the initiation of higher education in South Africa. Raju (2006) argues that the apartheid administration effectively established a higher education system that was both intricate and biased. In the 1990s, the higher education system consisted of 21 universities, 15 Technikons, and various colleges, including teacher training colleges, agricultural colleges, and colleges of nursing. During the apartheid era, African students were constitutionally barred from attending the 19 white higher education institutions. Instead, they were only allowed to enrol in six schools that were explicitly designated for their use (Bunting, 2006, pp. 38-40).

Essentially, this policy dictated that black individuals would only be able to pursue higher education in their respective homelands. The colleges in these homelands were specifically designated for each major ethnic group, such as Zulus attending classes with   Zulus and Xhosas with Xhosas. Furthermore, a Historically Black University (HBU) was more inclined to provide nursing programs rather than medicine, public administration, or political philosophy. During the apartheid period, research was organized to prioritize the interests of the white population and their desire for security in a continent experiencing numerous wars for independence (Bawa & Mouton, 2001). This segmentation created a dual education system characterized by inequality and injustice. Building on the previous statement, Carolissen and Bozalek (2017:347) contend that the notion of dualism, as exemplified by Plumwood (1993), emerges when two contrasting elements are subsequently ranked hierarchically.

3.2.   Smart universities and massification of higher education in South Africa

A Smart University is an educational institution incorporating advanced technology, such as the Internet of Things (IoT) and smart devices, to accomplish its strategic objectives (Mbombo & Cavus, 2021). Technological innovation in computer technology and data systems is the prerequisite for becoming a leading-edge Smart University. E-learning is effective and cost-efficient at all levels, including administrators and executives. Compared to traditional universities, it reduces labour costs. Therefore, smart universities integrate new technology that enables students, teachers, and administrative staff to utilize automated systems and tools (Pornphol & Tongkeo, 2018). A smart university is an educational institution that offers innovative methods of working, studying, and teaching in environments that effectively integrate cutting-edge hardware and software platforms, utilizing large amounts of data, sensors, social media, and machine learning (Barn, 2020). Harris (2022) contends that higher education unites a varied student population under impressive and modern architectural structures. Presently, the expenses associated with obtaining a university degree have reached unprecedented levels. Consequently, students now have higher expectations in terms of both top-notch facilities and exceptional intellectual resources when selecting their educational institution. Given that university campuses function as self-contained micro-societies, serving as places of work, residence, and recreation, there is significant potential for educational institutions to implement smart city-like changes on a smaller scale within their campuses.

Figure 3: Components of a Smart University
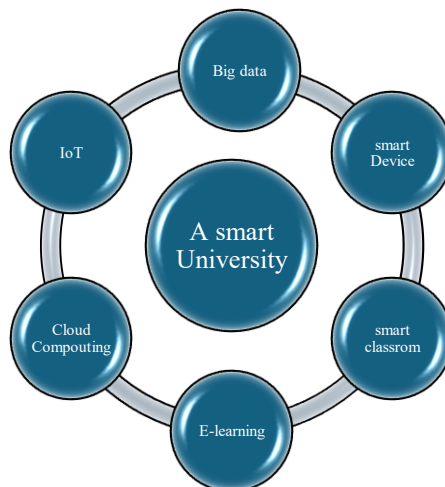
Source: Mbombo & Cavus (2021)

The use of technology in higher education has undoubtedly gained ground. This revolution in higher education has promoted higher education institutions to understand how technology works and how it can aid in delivering quality content in the classroom. Globally, there has been a push to transform how higher education content is delivered. This push has been driven by recent observations on how higher education was disrupted because of the COVID-19 pandemic, which exposed the flaws in the traditional way of delivering higher education content (face-to-face classrooms). However, while the changing higher education environment has necessitated the push, one needs to consider resource availability, especially in South Africa, where some universities are more equal than others. Therefore, while the state funds South African universities, there is a need for clear and consistent policies to address the differences and divisions within the South African higher education system, namely between historically white and historically Black universities (Hlatshwayo, 2020). There is an increasing disparity across various higher education institutions within the system. It is necessary to guarantee that students enrolled in different academies have equal access to institutional, epistemological, and curriculum experiences without facing any disadvantages (Hlatshwayo, 2020). However, in South Africa, the massification of higher education has been both a blessing and a curse for South Africa's higher education sector. Massification has caused severe overcrowding in classrooms in historically black universities, which has largely affected the quality of education offered. Unlike previously white universities, which are often located in urban areas, historically black universities are typically situated in rural areas. Because of their rurality, historically, black universities have been seen as more affordable than their white counterparts.

Nevertheless, it is worth noting that the massification of higher education has also been viewed as a positive development by the government since the democratic transition in 1994. University students have increased over two-fold, from 495,348 in 1994 to 1,094,808 in 2020. The increase in enrolment also indicates a notable change in the ethnic composition of university campuses, as Black African students now make up the largest racial group. In 1994, the majority of university students, specifically 221,832 individuals, identified as White (Cloete, 2024). The number of African students enrolled in studies in South Africa's universities was 212,030, while the number of Indian students was 34,010, and the number of Coloured students was 27,496. By 2020, the enrolment of African students in universities had increased fourfold, reaching a total of 862,313 students, while the number of White students decreased to 118,505. There was an increase in the number of Coloured students enrolled at universities,

reaching 61,923 enrolments, while Indian students accounted for 41,262 enrolments.

According to Cloete (2024), the DHET categorized 10,805 students as unknown. These statistics for the government meant that, after inheriting a skewed higher education system, the growth of black enrollment in higher education was a triumph for the government of the day. However, situated in rural areas, historically black universities face an overcrowding issue, which then affects the delivery of quality education. For example, in the US, Carr (2023) noted that when HBCUs receive less funding, it can lead to overcrowded classrooms, outdated technology, and limited course offerings. The disparity in educational quality can perpetuate inequities, particularly in the context of historically Black colleges and universities. According to the Times Higher Education (2024), the COVID-19 pandemic has accelerated the transition towards adopting various learning, teaching, and assessment modes in higher education.

Nevertheless, this has exacerbated South Africa's difficulties, where institutions already grappled with insufficient resources and disparities between employers' requirements and students' competencies before the pandemic. In a constantly changing environment, Nyembe (2023) asserts that higher education institutions are more than simply places of study; they are the driving forces behind societal advancement. Adopting change is crucial, particularly in the face of significant transformations propelled by technological progress. The impact of the Fourth Industrial Revolution and the pressing socioeconomic issues require a profound change in how South African higher education institutions approach teaching and learning methods.

3.3. The use of Technology in South Africa's higher education system

There is a growing consensus in South Africa's higher education system that the country needs to keep pace with international trends that have led to the increasing use of technology in delivering quality content. The increasing use of Information and Communication Technologies (ICTs) has generated significant interest and influence in our everyday lives. However, one aspect has been crucial in the wider context of higher education. Online learning, or e-learning, is changing how knowledge is transferred by speeding up the learning process through connected resources and technologies. Staying up to date with advancing technologies is crucial for maximizing the benefits. E-learning has an undeniable impact on higher education by making training easily accessible, improving efficiency, and contributing to better student outcomes (The WizIQ Blog, 2017). Higher education institutions are progressively utilizing technology to

enhance the learning experience by adopting the most suitable models. Online technology can effectively tackle educational disparities and generate opportunities (Gulati, 2008).

The contemporary higher education (HE) environment has widely recognized digital technologies as a key component. The higher education sector in South Africa is transforming the way it utilizes 4IR technology. The teaching and learning environment is undergoing transformation due to the emergence of e-learning, mobile learning, and open educational resources (Donald & Bophelo, 2023). To enhance student outcomes, lecturers must utilize technology-based instructional practices. Adopting technology offers equitable education and collaborative research opportunities. South Africa's higher education sector has the potential to undergo significant transformation and thrive in the digital era by effectively utilizing the technologies associated with the Fourth Industrial Revolution (Donald & Bophelo, 2023). Although there may be some hesitation towards embracing this revolution, the need to provide educational settings that prioritize student-centred learning and align with the Fourth Industrial Revolution is growing. It is equally important to recognize the possible difficulties that technology may present in the context of higher education (Nyembe, 2023).

The COVID-19 pandemic highlighted the need to integrate technology into higher education in South Africa. Ndlovu, Ndebele, and Mlambo (2022) observed severe consequences in South Africa. The traditional teaching method stopped, Students returned home, and classes were moved to online platforms. Although the government was compelled to take measures to contain the spread of the virus, there was insufficient time to train students, particularly in previously disadvantaged universities, on using online learning platforms. Additionally, staff members weren't given adequate time to optimally enhance their proficiency using these systems (Ndebele & Mlambo, 2021). Furthermore, there is a widespread problem of internet availability in numerous rural areas around the country. Not all students have access to the necessary technological devices required for online learning, including laptops, tablets, and routers.

The government's attempt to mitigate the pandemic's impact on the higher education sector was hindered by these problems (Mnguni, 2020). The COVID-19 pandemic underscored the pressing need to enhance connectivity and technology availability to meet the demands of future education in South Africa. Nyembe (2023) noted that although technology integration presents challenges, such as the digital divide and cybersecurity concerns, it also offers enhanced opportunities for engagement, collaboration, and self-directed learning. Tackling these challenges is crucial to fully harness the potential of technology in South African higher education, which will have a positive impact on students,

educators, institutions, and society. Although the need to incorporate technology into higher education institutions in South Africa is well recognized, the question remains whether historically black institutions can effectively incorporate modern technology into their teaching and learning processes, considering the various problems they face. Mlambo, Mahlaba, and Mphurpi (2023) observed that the pandemic exposed significant deficiencies in South African universities, particularly those with limited technology, infrastructure, human resources, transformation, and finance. The abrupt transition from in-person to multi-modal learning has revealed that Historically Black Universities (HBUs) have a constrained ability to adapt to such rapid changes due to their current level of development and lack of preparedness. In addition, Osunkunle (2006) contended that it has become customary for students in historically white institutions (HWUs) in South Africa to have continuous access to computers, the Internet, e-learning resources, online result checking, and even online registration.

Nevertheless, historically black universities (HBUs) are still struggling to obtain access to these resources. At a broad level, there is a problem of limited access to basic ICT facilities, often referred to as a digital divide (Osunkunle, 2006). This is apparent from the gap in ICT accessibility between industrialized nations, such as the U.S.A. and Switzerland, and underdeveloped nations in Africa, like Ethiopia and the Congo. A small digital divide still exists in South Africa. The division is evident across South African universities, with students in historically white schools, such as the University of Pretoria, Rhodes University, and Stellenbosch University, having unrestricted access to ICT facilities, including computers and the Internet (Osunkunle, 2006). Conversely, the situation is different in Historically Black Universities (HBUs), where the availability of ICT facilities is severely restricted. This is evident through personal observation, as many HBUs, such as the University of Fort Hare, the University of Limpopo, and the University of Zululand, continue struggling with limited ICT resource access.

4. FINDINGS: ADAPTION CHALLENGES

4.1. Infrastructure challenges

Limited access to reliable and high-speed internet is a significant issue. Many HBUs are located in areas with poor infrastructure, which affects classroom technology consolidation. The National Education, Health and Allied Workers Union (NEHAWU) stated in the SAHRC report (2014:21) that historically white institutions have historically received an excessive allocation of resources for infrastructure development, unlike historically black universities. This infrastructure disadvantage hinders the progress of transformation and the

attainment of equity. The inadequate infrastructure at HBUs hinders the efficient integration of technology, hindering the need to consolidate the concept of a smart university. Additionally, developing countries face numerous obstacles that hinder their ability to utilize ICT in education. Ogange (2011) states that the main obstacle is a lack of sufficient infrastructure to support the adoption of ICT. Africa experiences limited participation in the ICT revolution network, with only a handful of financially prosperous countries and strong connections to other global networks. Consequently, a significant disparity in access to education is known as the "digital divide." This split separates nations with integrated information and communication technology (ICT) from those excluded from these advantages, enhancing their socio-economic standing (Ntorukiri et al., 2022). Consequently, it is imperative to allocate resources towards developing ICT infrastructure in HBU's to enable them to possess the necessary infrastructure for incorporating technology into their educational practices. It is crucial to ensure that Historically Black universities (HBUs) can narrow the technological gap between themselves and historically white universities.

4.2.   Lack of skills and the digital divide

A smart University requires robust academic support services, such as tutoring and counselling, which may be underdeveloped. However, there is often a lack of digital literacy among both students and staff. This includes basic computer skills and more advanced competencies required for effective online learning and teaching. Global Resourcing (2023) noted that universities are seeing a growing scarcity of digital, data, and technology workers for both temporary and permanent positions in the higher education industry. With the rising demand for skilled personnel and the decreasing number of qualified candidates, the higher education sector may encounter a significant decrease in filled positions, which can be referred to as a 'talent cliff'. This will lead to a substantial decrease in both capacity and efficiency at a moment when the emphasis on digital transformation in higher education policy has never been greater. In South Africa's historically black universities (HBUs), due to the scarcity of highly skilled individuals and the intense competition for academics among institutions, businesses, and government entities, implementing a salary differential may be the sole viable answer. Another solution may be to augment compensation to allure experienced personnel in HBUs.

4.3.   Funding

HBUs typically have less funding compared to historically white universities. This limits their ability to invest in advanced technologies, maintain

existing infrastructure, and provide training for staff and students. A significant obstacle faced by South African colleges is a lack of sufficient financial resources. Consequently, there has been a decreased quality of facilities, a restricted ability to do research, and a scarcity of academic personnel. The insufficient allocation of funds has established a detrimental pattern whereby universities face a dearth of essential resources to enhance their academic productivity, leading to a restricted number of research publications and diminished contributions to the worldwide academic sphere (Ndevu, 2023).

Moreover, insufficient financial resources have compelled some aspiring and up-and-coming scholars to pursue opportunities overseas, thereby exacerbating the scarcity of skilled individuals within the nation. Universities have a significant obstacle in the form of insufficient money to integrate cutting-edge digital learning solutions into the classroom. This difficulty is compounded by the hesitancy of lecturers to use unfamiliar technologies. Ilorah (2006) observes that the apartheid government in South Africa founded historically black universities (HBUs) to provide education to black students who were prohibited from attending racially segregated white-only universities. These universities received inadequate funding compared to the universities that exclusively serve white students.

5. CONCLUSION AND RECOMMENDATIONS

Literature presented in this paper shows that South Africa needs to take necessary steps to empower HBUs to adapt and thrive in the evolving landscape of the Fourth Industrial Revolution, thereby ensuring inclusive growth and development across the country. The above discussion showed that his HBUs in South Africa are behind in terms of a technological revolution in delivering quality content in the classroom. It is, therefore, vital that investments are made to change these dynamics so that HBUs don't fall behind compared to previously white universities. This is vital to bridge the digital gap in South Africa. Higher education sector. Therefore, this paper argues for increased investments in technologically friendly infrastructure in HBUs and increased training for academics to understand how to use technology in the classroom. Moreover, student capacitation is necessary to ensure that learners can effectively utilize online classroom technology systems. This is important to ensure that, in the long run, historically black universities reduce the digital gap between them and historically white universities.

The paper also found that it is vital to give attention and support to the development of new curricula that incorporate 4IR knowledge amid changing patterns for HBUs. In essence, to assist HBUs, partnerships between HBUs and

industry stakeholders must be attained to foster collaboration on research, internships, and technology transfer. This will help ensure that academic programs are aligned with industry needs and developments. Ultimately, acknowledging the status of HBUs as presented in this paper, efforts to develop supportive policies and regulatory frameworks that promote innovation, research, and development at HBUs must be achieved, as this will help address barriers that may hinder their ability to adapt and keep up with international trends that have given rise to the increasing use of technology in delivering quality content. Lastly, the paper encourages national and international collaboration and exchange programs with universities that are leaders in 4IR technologies. This can facilitate knowledge sharing and capacity building for HBUs.

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Unlocking Positive Work Attitudes: The Power of Leadership and Coaching

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Abstract

Drawing on the psychological capital theory from a micro-coaching perspective, this research investigated the interactive effects of knowledge-oriented leadership and managerial coaching on employees' critical psychological states, ultimately leading to positive work attitudes. A survey of 156 librarians, information managers, and library assistants from various public and private tertiary colleges in Punjab, Pakistan, was conducted using existing measures. Results revealed that knowledge-oriented leadership enhances critical psychological states (meaningfulness, safety, and availability), fostering positive work attitudes (creative self-efficacy, affective commitment, and work engagement). Managerial coaching moderated these relationships, amplifying the effect of knowledge-oriented leadership on critical psychological states and cultivating more positive work attitudes, particularly for employees who received higher levels of coaching. The findings underscore the importance of employee-centered leadership and development approaches in enhancing the psychological capital of employees and their work outcomes. The implications of these findings are discussed.

1. INTRODUCTION

Knowledge is the cornerstone of sustainable development and prosperity. In today's knowledge-based economies and societies, knowledge drives innovation and competitive advantage (Amarakoon et al., 2018; Le, 2024). Effective knowledge management enables innovation-based competitive strategies (S. Rehman et al., 2024; Salunke et al., 2019). The goal of civic education is to cultivate knowledgeable and responsible citizens for national development (Thelma, 2024). In this context, educational institutions must evolve into learning organizations, developing new knowledge and learning methods to meet the demands of the market. However, public sector tertiary

educational institutions are often perceived as less innovative and competitive (Rahman et al., 2019), possibly due to an uninspiring psychological environment characterized by poor employee work attitudes, such as withdrawal behavior (Judge & Kammeyer-Mueller, 2012), which contributes to the decline in educational quality.

Libraries foster education and research (Ullah & Usman, 2023), with academic libraries being crucial for students' success (Thorpe et al., 2016). As knowledge institutions, libraries are key stakeholders in the educational system, which catalyzes social and economic change. However, libraries require modern facilities, skilled staff, and a positive work environment to achieve desired outcomes rather than being mere book repositories (Popoola & Fagbola, 2023). To revitalize libraries and unlock their potential, it is essential to recognize the importance of librarians' professional services, provide them with meaningful work, and foster a supportive environment to nurture positive work attitudes (Ezeudu et al., 2024). Pakistan's National Education Policy (2017-2025) seeks to develop well-rounded individuals, instill morality, promote socio-economic development, and foster national harmony. It emphasizes the establishment and improvement of library services in all educational institutions. However, these objectives will remain unachieved unless efforts are made to enhance critical psychological states and inculcate positive work attitudes among library professionals.

Positively engaged academic librarians are great research partners (Rabasa & Abrizah, 2024), who can help achieve national educational goals. Relational, collaborative leadership prioritizes fostering strong interpersonal connections and continuous learning to achieve success and drive growth in the workplace (Cota, 2024). Therefore, leadership and coaching are pivotal in facilitating responses to challenging contexts, enabling change, and driving high performance (Shoukry & Cox, 2018). This study draws upon psychological capital theory (PsyCap) and the micro-coaching perspective to explain how knowledge-oriented leadership and managerial coaching converge to boost critical psychological states and positive work attitudes among college library staff. This advances the application of PsyCap theory and micro-coaching in library and information management research, providing practical recommendations for information and knowledge management professionals.

2. LITERATURE AND HYPOTHESES

A collaborative, reflective, and goal-centered relationship between a leader and his subordinates is necessary to achieve the desired outcomes (Corbu et al., 2021). In this study, PsyCap Theory (Luthans & Youssef-Morgan, 2017)

and micro-coaching perspectives (Castiello D'Antonio, 2018; van Zyl et al., 2020) are integrated to understand the interactive effect of knowledge-oriented leadership and managerial coaching in harnessing employees' critical psychological states and promoting positive work attitudes. PsyCap theory posits that individuals require psychological resources, including hope, efficacy, resilience, and optimism, to achieve their goals and perform at high levels. It offers a comprehensive framework for understanding employee behaviour (Ting et al., 2024) and organizational outcomes (Birani-Nasraldin et al., 2024). Micro-coaching is a need-based collaborative relationship between the coach (leader) and coachee (employee) focused on discovering, cultivating, and applying personal resources to enhance positive states and facilitate personal and professional growth (Castiello D'Antonio, 2018; van Zyl et al., 2020). Given the time and cost constraints, micro-coaching is a useful technique that utilizes positive psychology principles (Biswas-Diener, 2009), allowing coaches to be conscious of their personal resources and providing the conditions for developing skills and abilities beyond the usual or prescribed professional roles.

2.1.   Knowledge-Oriented Leadership and Positive Work Attitudes

Knowledge drives competitive organizational performance (Amarakoon et al., 2018; Le, 2024). Knowledge-oriented leadership combines transactional and transformational leadership approaches, focusing on effective knowledge management (Donate & de Pablo, 2015). Positive work attitudes, such as affective commitment (Allen et al., 1990), work engagement (Kahn, 1990), and creative self-efficacy (Tierney & Farmer, 2002), are precursors to a range of desirable outcomes. Organizations undertake measures to facilitate and promote positive work attitudes. Knowledge-oriented leaders naturally have a change mindset and want their subordinates to show higher work engagement (Bakker & Albrecht, 2018). It fosters affective commitment and citizenship behaviour (H. Kim, 2014). It fosters an ethically sound work environment (Loi et al., 2015), which emotionally bonds employees to their organization, thereby cultivating loyalty (Mahdi et al., 2014). Work engagement is vital to employee well-being and organizational success (Saks, 2006). It has been linked to numerous beneficial outcomes, including reduced burnout (Schaufeli & Bakker, 2004) and lower turnover rates (Saks, 2006). It enhances productivity, citizenship behaviour, and financial performance (Richman, 2006). It also fosters commitment, customer satisfaction (Saks, 2006), and innovative behaviour at work (Aryee et al., 2012). Self-efficacy is the degree of self-confidence that employees need to do tasks in a given work setting and cope with complex and innovative challenges (Tierney & Farmer, 2002). Knowledge-oriented leadership

can improve employee attitudes, such as affective commitment, creative self-efficacy, and work engagement (Ahmed et al., 2024; Chughtai & Khan, 2024; Shamim et al., 2019), which improve knowledge management behaviour (Chughtai & Khan, 2024), and innovative performance at employee (Ahmed et al., 2024) and organizational levels (Chughtai & Khan, 2024).

2.2.   Mediating Role of Critical Psychological States

The psychological moods of employees influence team engagement and discretionary effort (Shuck et al., 2011). Psychological states of meaningfulness, safety, and availability predict work engagement and influence employee performance (Chikoko et al., 2014). Employees are more likely to be available (with the freedom to complete tasks with motivation, engagement, and productivity) when they believe their employment is meaningful and secure. For employees to perform to the best of their abilities, they must be thoroughly engaged (Asiwe et al., 2017). This calls for critical psychological states to promote a sense of purpose, security, and empowerment to improve job satisfaction, team cohesion, and organizational success. The influence of a knowledge-oriented leadership approach is profound, shaping positive outcomes in the workplace. When effectively implemented, this approach can significantly enhance motivation, engagement, and job satisfaction (Iranzadeh & Bahrami, 2013), which are critical precursors to innovative performance and organizational excellence (Taylor et al., 2019).

Knowledge-oriented leaders promote positive work attitudes, such as affective commitment, work engagement, and creative self-efficacy (Shamim et al., 2019). They drive organizational performance and success by fostering beneficial psychological states, such as meaningfulness, safety, and availability. However, the specific mechanisms that underpin these relationships, particularly in the context of college education and the library, are less understood. It is worth noting that most employee learning occurs in the workplace, where managerial coaching is an emerging approach to support and enhance learning and development processes (de Haan & Nilsson, 2023).

In line with the PsyCap Theory (Luthans & Youssef-Morgan, 2017)Knowledge-oriented leadership can enhance employees' psychological states by implementing effective knowledge management practices, fostering participation, and creating a supportive work environment. This can lead to increased motivation, improved task performance, and potential future advancements (Iranzadeh & Bahrami, 2013), leading to positive work attitudes (Shamim et al., 2019) and innovative performance (Ahmed et al., 2024; Chughtai & Khan, 2024).

2.3.   Moderating Effect of Managerial Coaching

Employee outcomes are not solely determined by individual attributes but also by the interaction of situational elements (Shuck et al., 2011). In knowledge-intensive environments such as academic libraries, mentoring and skills development opportunities can influence positive attitudes (Jayasingam & Yong, 2013). Employees expect their leaders to be actively involved in promoting and supporting knowledge management activities, providing guidance, and facilitating opportunities for growth and development (Bell DeTienne et al., 2004). Influential leaders in such organizations recognize the importance of creating an environment that encourages collaboration, innovation, and continuous learning, ultimately driving organizational success and competitiveness.

Knowledge-oriented leadership fosters a culture of knowledge-sharing, work engagement, and innovative work behaviour (Chughtai & Khan, 2024). It can also strengthen knowledge management practices (Shamim et al., 2019) that acknowledge and reward employees' efforts and capabilities (Chughtai & Khan, 2024; Ribière & Sitar, 2003). By embracing this approach, leaders can prevent counterproductive behaviours like knowledge hoarding, territorialism, and resistance to change, ultimately promoting a culture of knowledge sharing, transfer, and application (Lakshman, 2009). Instead, it fosters a culture of openness, collaboration, and trust, where employees feel encouraged to share their expertise and learn from one another, driving innovation and organizational growth.

Managerial coaching, when combined with knowledge-oriented leadership and applied effectively, can create a positive psychological climate that fosters employee engagement and discretionary effort and a more optimistic outlook for the organization's success (Shuck et al., 2011). This fosters a commitment to improving psychological engagement and empowerment (Al Nahyan et al., 2024; Mariam et al., 2020), innovative performance at individual and organizational levels (Ahmed et al., 2024; Al Nahyan et al., 2024; Chughtai & Khan, 2024). PsyCap Theory (Luthans & Youssef-Morgan, 2017) can help explain how coaching interventions implemented by knowledge-oriented leaders can enhance critical psychological states such as meaningfulness, safety, and availability. Coaching involves structured interactions, strategies, and techniques to drive sustainable change, benefiting the coaches and stakeholders (Cox et al., 2023).

Coaching-oriented leaders can enhance critical psychological states by fostering a supportive work environment and promoting knowledge management practices, increasing motivation, task performance, and future improvements

(Iranzadeh & Bahrami, 2013). Applying coaching principles in the workplace enhances employee engagement across all levels, boosts confidence among leaders, and unlocks employee potential (Crabb, 2011). By adopting a coaching approach, leaders can empower employees to take ownership, develop their skills, and reach their full potential, ultimately driving growth and success. The efficacy of coaching interventions in enhancing individual outcomes has been substantially researched, suggesting that such interventions can facilitate a strengths-based approach, emotional regulation, and purpose-driven work alignment, culminating in improved happiness, well-being, engagement, and performance (Crabb, 2011).

Furthermore, leadership and management practices that incorporate developmental and coaching interventions, with a focus on strategic talent management, significantly influence employee engagement and discretionary effort (Lockwood, 2007). The adoption of a coaching-oriented leadership approach can foster a work environment characterized by psychological meaningfulness, safety, and availability, thereby promoting positive work attitudes such as affective commitment, engagement, and self-efficacy (Kim et al., 2024; Ngo et al., 2024; Ribeiro et al., 2021; Viitala et al., 2023), contributing to a culture of engagement and growth (Edmondson, 2004). This, in turn, can have a positive impact on organizational outcomes, underscoring the importance of coaching and leadership development in the modern workplace.

2.4.   Research Model and Hypotheses Statements

Effective knowledge management practices are crucial, as knowledge not applied has no value. Coaching and knowledge directories facilitate the application of knowledge in work settings. By promoting knowledge management practices and a supportive work environment, leaders oriented toward knowledge and coaching can enhance critical psychological states of meaningfulness, safety, and availability at work, ultimately leading to positive work attitudes (Shamim et al., 2019) and innovative performance outcomes (Ahmed et al., 2024; Chughtai & Khan, 2024). This study integrated the PsyCap Theory and micro-coaching perspective and conceptualized a model suggesting the interactive and synergistic effect of knowledge-oriented leadership (Ahmed et al., 2024; Chughtai & Khan, 2024; Mariam et al., 2022; Shamim et al., 2019) and managerial coaching (Al Nahyan et al., 2024; Kim et al., 2024; Mariam et al., 2019, 2020; Ngo et al., 2024; Ribeiro et al., 2021; Song & Li, 2024; Tanskanen et al., 2019; Viitala et al., 2023) can more effectively nurture critical psychological states and cultivate positive work attitudes. To empirically test this research model (Figure 1), this study has articulated and examined the following
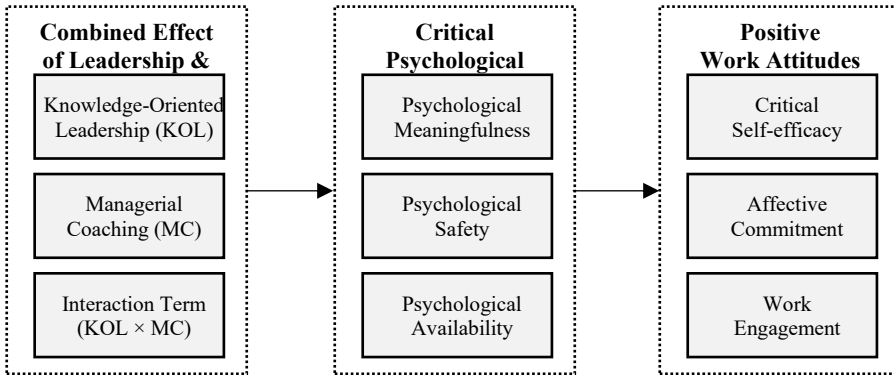
interactive hypotheses.

Figure 1: Combined effect model of knowledge-oriented leadership and coaching

Hypothesis 1: As managerial coaching increases, knowledge-oriented leadership more effectively fosters employees' psychological meaningfulness, safety, and availability.

Hypothesis 2: As managerial coaching increases, knowledge-oriented leadership more effectively cultivates creative self-efficacy, affective commitment, and work engagement by fostering psychological meaningfulness at work.

Hypothesis 3: As managerial coaching increases, knowledge-oriented leadership more effectively cultivates creative self-efficacy, affective commitment, and work engagement by fostering psychological safety at work.

Hypothesis 4: As managerial coaching increases, knowledge-oriented leadership more effectively cultivates creative self-efficacy, affective commitment, and work engagement by fostering psychological availability at work.

3.   METHODOLOGY

3.1.   Participants and Procedure

A cross-sectional field study was conducted to collect data on the study variables. This approach was chosen for its cost-effectiveness and efficiency in accessing participants, particularly in time-bound academic research projects. A total of 156 employees, comprising information managers, librarians, and library assistants from various public and private tertiary colleges in Punjab, Pakistan, participated in the study. This sample size was deemed sufficient, as researchers recommend 2 to 50 subjects per variable for accurate predictions (Austin & Steyerberg, 2015). The sample consisted of 68.6% male and 31.4% female participants, with the majority (66.0%) aged between 25-35 years, followed by 36-40 years (30.7%), and 46+ years (3.2%). The participants were highly educated, with 9% holding an MS/M.Phil. degree, 25.6% a master's degree,

54.5% a graduate degree, and 10.9% a diploma. They also had significant experience in the field of library and information management, with 27.6% having 1-5 years of experience, 23.7% having 6-10 years, 15.4% having 11-15 years, 16.0% having 16-20 years, and 17.3% having 21+ years of experience.

3.2. Measures

A survey instrument was created for this study using existing measurements for all variables, as described in the following sub-sections. In line with the literature, which suggests that more scale points indicate better psychometric properties (Joshi et al., 2015). A 7-point Likert scale was employed for the chosen measures. This scale is widely used in management research, as it is considered to more effectively capture a range of responses.

3.3. Knowledge-Oriented Leadership

Knowledge-oriented leadership ($\alpha=0.87$) was measured using a 9-item measure (Donate & de Pablo, 2015). Sample items included, "In my organization, managers promote learning from experience and tolerate mistakes up to a certain point." Respondents rated the level to which their leaders demonstrated knowledge-oriented behaviors at work.

3.4. Managerial Coaching

Managerial coaching ($\alpha=0.84$) was evaluated using a 7-item measure (Tanskanen et al., 2019). Sample items included "My manager discusses our performance with us sufficiently." Respondents indicated the degree to which they have coaching from their leaders (managers) to guide their performance and development.

3.5. Critical psychological states

Critical psychological states were measured using a 14-item measure (May et al., 2004), encompassing three dimensions: psychological meaningfulness (6 items, $\alpha = 0.87$), psychological safety (3 items, $\alpha = 0.87$), and psychological availability (5 items, $\alpha = 0.87$), with example items including "My job activities, are personally meaningful to me", "I am not afraid to be myself at work", and "I am confident in my ability to think clearly at work", respectively. Respondents indicated the extent to which they feel that their work is meaningful, the working environment is safe, and the likelihood of their availability to engage in work tasks.

3.6. Positive Work Attitudes

Employees' positive work attitudes were assessed using nine items

comprising three dimensions: creative self-efficacy, affective commitment, and work engagement. Three items were used to measure creative self-efficacy (Tierney & Farmer, 2002), α=0.87), for example, "I feel that I am good at generating novel ideas"). Three items were used to assess affective commitment (Allen et al., 1990), α=0.87), for instance, "I feel a strong sense of belonging to my organization"). Three items were used to measure work engagement (Schaufeli & Bakker, 2004), α=0.87, for example, "I like to work intensely"). Respondents indicated the extent to which they exhibit creative self-efficacy, affective commitment, and engagement at work.

4. RESULTS

4.1. Reliability and validity of measures

Harman's single-factor test was used to evaluate the possibility of common method bias. The findings showed that only 13% of the variance was explained by the single component, which is less than the 50% requirement. This implies there is little chance for the common method bias to pose a severe issue in this study. Table 1 displays scale means, factor loadings ranging between 0.52 and 0.81, average variance extracted (AVE>0.50), Cronbach's alpha (α>0.70), and composite reliability (CR>0.70) scores for each variable, which demonstrated adequate reliability and convergent validity of measures. Also, discriminant validity was established as shown in Table 2, where the square roots of AVEs for all variables exceeded their correlations with other variables (Fornell & Larcker, 1981).

Table 1. Descriptive statistics and convergent validity

Construct/Variable	Items	Mean (SD)	Loadings	AVE	Alpha	CR
Knowledge-Oriented Leadership	9	5.53 (0.93)	0.52 < 0.82	0.63	0.87	0.90
Managerial Coaching	7	5.16 (1.48)	0.68 < 0.94	0.75	0.94	0.95
Psychological Meaningfulness	6	5.67 (0.87)	0.63 < 0.85	0.55	0.82	0.88
Psychological Safety	3	5.51 (0.80)	0.77 < 0.82	0.65	0.74	0.85
Psychological Availability	5	5.66 (0.79)	0.70 < 0.75	0.54	0.79	0.85
Creative Self-Efficacy	3	5.53 (0.71)	0.77 < 0.84	0.63	0.71	0.84
Affective Commitment	3	5.51 (0.77)	0.80 < 0.84	0.69	0.77	0.87
Work Engagement	3	5.34 (0.84)	0.81 < 0.85	0.69	0.78	0.87

n=156, AVE=average variance extracted, CR=composite reliability, SD=standard deviation.

Table 2. Discriminant validity

Variables	1	2	3	4	5	6	7	8
1. Knowledge-Oriented Leadership	0.79							
2. Managerial Coaching	0.55**	0.86						
3. Psychological Meaningfulness	0.57**	0.596**	0.74					
4. Psychological Safety	0.53**	0.47**	0.83**	0.81				
5. Psychological Availability	0.49**	0.47**	0.72**	0.73**	0.73			
6. Creative Self-Efficacy	0.55**	0.51**	0.78**	0.76**	0.75**	0.79		
7. Affective Commitment	0.55**	0.44**	0.79**	0.81**	0.72**	0.81**	0.83	
8. Work Engagement	0.47**	0.37**	0.66**	0.64**	0.61**	0.69**	0.72**	0.83

Note: The bold-faced values in the diagonal are √AVE, and the other values represent inter-construct correlations.

4.2.   Conditional process analysis

The conditional process analysis was performed by using process model 7 (Hayes, 2017), separately for each positive work attitude as a dependent variable: creative self-efficacy, affective commitment, and work engagement. Knowledge-oriented leadership was included as an independent variable. Managerial coaching was the moderating variable, and three critical psychological states were included as parallel mediators (meaningfulness, safety, and availability). Table 3 shows the results of moderated multiple mediation.

Knowledge-oriented leadership, managerial coaching, and their interaction term (KOL×MC) exhibited significant positive relationships with each critical psychological state (meaningfulness, safety, and availability), which in turn revealed significant positive associations with positive work attitudes (creative self-efficacy, affective commitment, and work engagement). Table 4 shows the conditional effects of the focal predictor (KOL) on mediators (critical psychological states) and the conditional indirect effects of the focal predictor (KOL) on dependent variables (positive work attitudes) at varying (low, medium, and high) values of the moderator (MC) for evaluating the study hypotheses.

Table 3. Path coefficients

Variables	Psychological States (Mediators)			Positive Work Attitudes (DVs)		
	PM	PS	PA	CSE	AC	WE
KOL	0.43^{**}	0.46^{**}	0.43^{**}	0.08^{ns}	0.07^{ns}	0.09^{ns}
MC	0.23^{**}	0.15^{**}	0.16^{**}			-
KOLxMC	0.09^{**}	0.08^{*}	0.13^{**}			
PM				0.28^{**}	0.24^{**}	0.28^{**}
PS				0.16^{*}	0.35^{**}	0.19^{ns}
PA	-	-	-	0.28^{**}	0.18^{**}	0.22^{*}

Note: AC=affective commitment, CSE=creative self-efficacy, IV=independent variable, KOL=knowledge-oriented leadership, MC=managerial coaching, PA=psychological availability, PM=psychological meaningfulness, PS=psychological safety, WE=work engagement.

1.1. Hypothesis testing

The direct and indirect effect coefficients provided by the moderated-multiple mediation were examined to evaluate the study hypotheses (Table 3). The results supported the significant effects of knowledge-oriented leadership, managerial coaching, and their interaction term on each critical psychological state and the positive work attitude. The outcomes of the conditional process showed an increasing trend in critical psychological states and positive work attitudes with the increasing levels of managerial coaching (Table 4), supporting the study hypotheses described below.

Hypothesis 1 states that as managerial coaching increases, knowledge-oriented leadership more effectively fosters critical psychological conditions of meaningfulness, safety, and availability. Results showed that the conditional interactive effect of KOL and MC on each critical psychological state was significant and increased with the increasing level of MC. Specifically, the effect of KOL on psychological meaningfulness increased from 0.30 (low) to 0.43 (medium) to 0.56 (high) with the increasing levels of MC (Table 4, Figure 1A). The interactive effect of KOL on psychological safety increased from 0.34 (low) to 0.46 (medium) to 0.58 (high) with the increasing levels of MC (Table 4, Figure 1B). The interactive effect of KOL on psychological availability increased from 0.23 (low) to 0.43 (medium) to 0.63 (high) with the increasing levels of MC (Table 4, Figure 1C). Hence, H1, H1a, H1b, and H1c were supported.

Table 4. Conditional effects of focal predictor on mediators and dependent variables

KOL (IV) Paths	MC (Moderator)	Critical Psychological States (Mediating variables)			Positive Work Attitudes (Dependent variables)			Status
		PM	PS	PA	CSE	AC	WE	
		H1a	H1b	H1c				H1 Supported
KOL →	-1.49	0.30** [0.17, 0.44]	0.34** [0.19, 0.49]	0.23** [0.10, 0.36]				
	0.00	0.43** [0.28, 0.58]	0.46** [0.30, 0.63]	0.43** [0.29, 0.58]				
	1.49	0.56** [0.35, 0.76]	0.58** [0.35, 0.81]	0.63** [0.43, 0.83]				
					H2a	H2b	H2c	H2 Supported
KOL → PM →	-1.49				0.08 [0.03, 0.14]	0.07 [0.02, 0.14]	0.08 [0.02, 0.17]	
	0.00				0.12 [0.06, 0.18]	0.10 [0.04, 0.18]	0.12 [0.03, 0.23]	
	1.49				0.15 [0.08, 0.25]	0.13 [0.06, 0.24]	0.15 [0.04, 0.30]	
					H3a	H3b	H3c	H3 Supported
KOL → PS →	-1.49				0.06 [0.01, 0.10]	0.12 [0.05, 0.19]	0.06 [0.00, 0.14]	
	0.00				0.08 [0.02, 0.13]	0.16 [0.09, 0.24]	0.09 [0.00, 0.18]	
	1.49				0.09 [0.03, 0.18]	0.20 [0.12, 0.31]	0.11 [0.00, 0.23]	
					H4a	H4b	H4c	H4 Supported
KOL → PA →	-1.49				0.07 [0.02, 0.12]	0.04 [0.01, 0.09]	0.05 [0.00, 0.11]	
	0.00				0.12 [0.07, 0.19]	0.08 [0.02, 0.15]	0.10 [0.01, 0.20]	
	1.49				0.18 [0.10, 0.27]	0.11 [0.03, 0.22]	0.14 [0.01, 0.29]	

Note: Values with square bracket are the 95% confidence intervals of path coefficients, AC=affective commitment, CSE=creative self-efficacy, IV=independent variable, KOL=knowledge-oriented leadership, MC=managerial coaching, PA=psychological availability, PM=psychological meaningfulness, PS=psychological safety, WE=work engagement.

Hypothesis 2 states that as managerial coaching increases, knowledge-oriented leadership cultivates creative self-efficacy, affective commitment, and work engagement more effectively by fostering psychological meaningfulness at work. Results showed that the conditional indirect interactive effect of KOL on each positive work attitude via psychological meaningfulness was significant, increasing with the increasing level of MC. Specifically, the effect of KOL on creative self-efficacy via psychological meaningfulness increased from 0.08 (low) to 0.12 (medium) to 0.15 (high) with the increasing level of MC (Table 4, Figure 2A). The effect of KOL on affective commitment via psychological meaningfulness increased from 0.07 (low) to 0.10 (medium) to 0.13 (high) with the increasing level of MC (Table 4, Figure 2B). The effect of KOL on work engagement via psychological meaningfulness increased from 0.08 (low) to 0.12 (medium) to 0.15 (high) with the increasing level of MC (Table 4, Figure 2C). Hence, H2, H2a, H2b, and H2c were supported.

Hypothesis 3 states that as managerial coaching increases, knowledge-oriented leadership cultivates creative self-efficacy, affective commitment, and work engagement more effectively by fostering psychological safety at work. Results showed that the conditional indirect interactive effect of KOL on each positive work attitude via psychological safety was significant, increasing with the increasing level of MC. Specifically, the effect of KOL on creative self-efficacy via psychological safety increased from 0.06 (low) to 0.08 (medium) to 0.09 (high) with the increasing level of MC (Table 4, Figure 2A). The effect of KOL on affective commitment via psychological safety increased from 0.12 (low) to 0.16 (medium) to 0.20 (high) with the increasing level of MC (Table 4, Figure 2B). The effect of KOL on work engagement via psychological safety increased from 0.06 (low) to 0.09 (medium) to 0.11 (high) with the increasing level of MC (Table 4, Figure 2C). Hence, H3, H3a, H3b, and H3c were supported.

Hypothesis 4 states that as managerial coaching increases, knowledge-oriented leadership cultivates creative self-efficacy, affective commitment, and work engagement more effectively by fostering psychological availability at work. Results showed that the indirect interactive effect of KOL on each positive work attitude was significant. via psychological availability, was significant, increasing with the increasing level of MC. Specifically, the effect of KOL on creative self-efficacy via psychological availability increased from 0.07 (low) to 0.12 (medium) to 0.18 (high) with the increasing level of MC (Table 4, Figure 2A). The effect of KOL on affective commitment via psychological availability increased from 0.04 (low) to 0.08 (medium) to 0.11 (high) with the increasing level of MC (Table 4, Figure 2B). The effect of KOL on work engagement via psychological availability increased from 0.05 (low) to 0.10 (medium) to 0.14

(high) with the increasing level of MC (Table 4, Figure 2C). Hence, H4, H4a, H4b, and H4c were supported.

Based on the aforementioned findings, interaction plots were created to visually represent the study hypotheses using the data presented in Table 5. Figures 2A, 2B, and 2C illustrate the interaction plots, showing the conditional effects of knowledge-oriented leadership on the critical psychological conditions of meaningfulness, safety, and availability, respectively. Figures 2A, 2B, and 2C represent the conditional indirect effects of KOL on positive work attitudes: creative self-efficacy, affective commitment, and work engagement, respectively, via the critical psychological states.

Table 5. Data for visualizing the conditional effects of the focal predictor

| KOL	MC	PM	PS	PA	CSE	AC	WE
-0.94	-1.49	4.98	4.91	5.10	3.53	3.77	3.36
0.00	-1.49	5.26	5.23	5.32	3.80	4.05	3.64
0.94	-1.49	5.55	5.55	5.54	4.07	4.34	3.91
-0.94	0.00	5.21	5.02	5.16	3.63	3.87	3.46
0.00	0.00	5.61	5.46	5.56	4.00	4.26	3.83
0.94	0.00	6.01	5.89	5.97	4.37	4.64	4.20
-0.94	1.49	5.44	5.14	5.21	3.73	3.98	3.56
0.00	1.49	5.96	5.68	5.80	4.20	4.46	4.02
0.94	1.49	6.48	6.23	6.39	4.68	4.95	4.49

Note: AC=affective commitment, CSE=creative self-efficacy, KOL=knowledge-oriented leadership, PA=psychological availability, PM=psychological meaningfulness, PS=psychological safety, WE=work engagement.
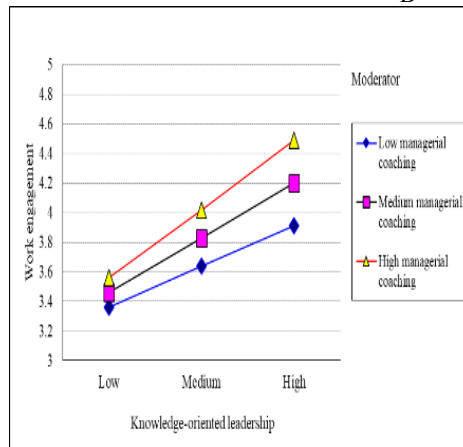

A

B
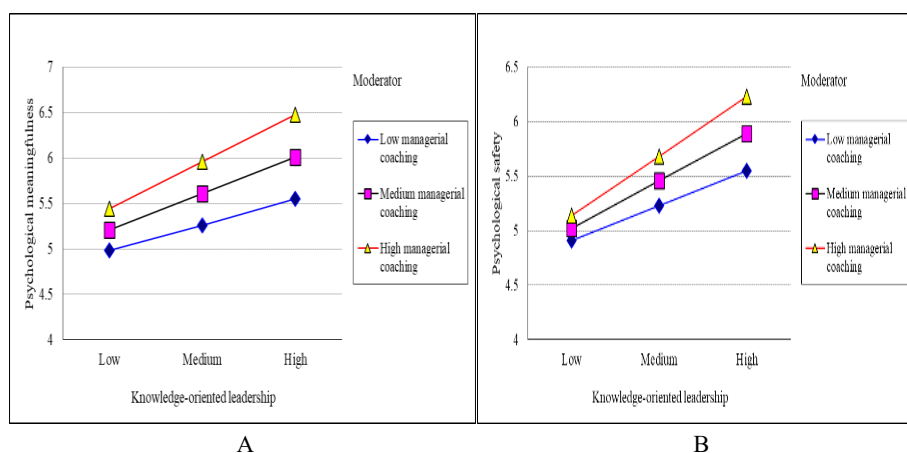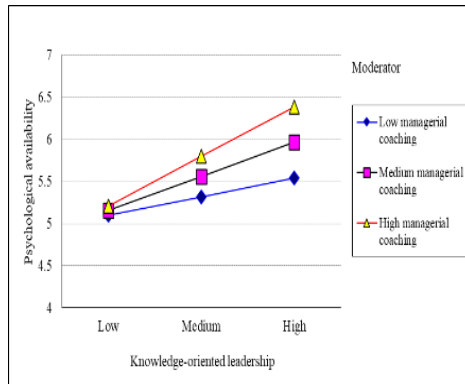
C

Figure 2. Interaction plots of the conditional effect of KOL on critical psychological states
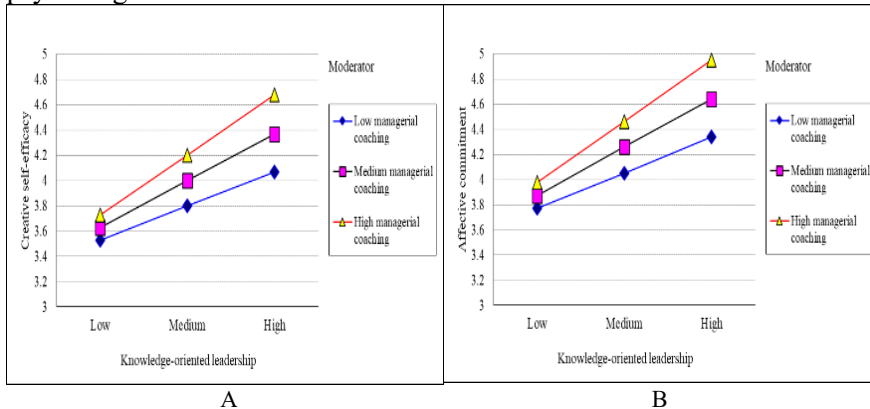
A

B

C

Figure 3. Interaction plots of conditional indirect effects of KOL on positive work attitudes

2. DISCUSSION

In contemporary organizational contexts characterized by accelerated change and intensifying competition, there is a growing expectation for employees to demonstrate positive and innovative work attitudes that align with and support the achievement of strategic business objectives (Javed et al., 2019). This shift reflects the increasing recognition of employee attitudes as a critical driver of organizational adaptability, resilience, and sustainable performance. However, many organizations, including those in the education sector, find their employees lacking innovation and engagement, putting desired success at risk (Serdyukov, 2017). Tertiary colleges and polytechnic institutes, in particular, struggle with inadequate skills and innovation, hindering growth (Rahman et al., 2019). To remain competitive in the international markets, there is a pressing need to transform academic libraries. Yet approximately 85% of universities in Pakistan have not adopted the necessary innovations in their library services (Awais & Ameen, 2019), with college libraries facing even greater challenges. The absence of positive psychological states and work attitudes can be seen as a contributing factor to employee disengagement. Therefore, leadership with a long-term vision and knowledge orientation is essential to foster positivity and engagement in the workplace.

We proposed and tested how knowledge-oriented leadership and managerial coaching encourage desired positive work attitudes, such as creative self-efficacy, affective commitment, and work engagement. We examined critical psychological conditions of employees, including psychological meaningfulness, safety, and availability, as mechanisms to explain this relationship. Additionally, we investigated the interactive effect of knowledge-oriented leadership and managerial coaching on employees' psychological states and work attitudes. The findings supported our hypotheses that knowledge-oriented leadership predicts positive work attitudes and that psychological conditions mediate this relationship. Furthermore, higher managerial coaching strengthened the ties between knowledge-oriented leadership and positive work attitudes. This highlights the importance of leaders' knowledge orientation and managerial coaching in enhancing employee outcomes. These aspects should be integrated as a regular feature to benefit from the innovative engagement of employees in achieving institutional objectives.

Academic leaders and library managers are tasked with fostering positive relationships with their subordinates and motivating them to achieve their mission and goals (Aslam, 2019). However, the coaching skills and practices that can facilitate this process are understudied, particularly in developing leadership and positive work attitudes in academic settings, including college libraries. While

knowledge orientation of leaders, critical psychological states, coaching, and positive work attitudes have been studied independently with various outcome variables, there is a need for further research to explore the interrelationships between these variables in a single study, especially in academic libraries and college education in Pakistan. This ongoing academic discourse is crucial for advancing our understanding of how leadership effectively achieves its goals and what factors mediate or moderate the impact of leadership on desired outcomes, including positive work attitudes.

If not fully utilized, knowledge remains ineffective in achieving organizational outcomes. Leaders play a crucial role in helping individuals develop self-awareness by objectively examining their actions and reactions and facilitating personal growth (Gasperini, 2013). Research highlights the significance of psychological safety in influencing team learning behaviour at work (Edmondson, 2004). Moreover, studies have shown that knowledge management enhances rational decision-making when combined with transformational and transactional leadership (Riaz & Khalili, 2014). Knowledge-oriented management also positively correlates with human resource performance (Torabi et al., 2016). Effective leadership inspires employees to work diligently towards achieving essential tasks, clarifies the management approach, and encourages employees to follow the leader in attaining organizational goals. Leadership encompasses various aspects, including leadership styles, motivation, and communication (Ribière & Sitar, 2003). Knowledge-oriented leaders adopt a relational approach, collaborating with other knowledge workers, utilizing emotional skills, and creating a conducive psychological environment that fosters meaningfulness, safety, and availability, ensuring employees' physical and psychological well-being to perform tasks effectively (Hansen et al., 2014). Based on this discussion, the following proposition is made:

Knowledge management goals are accomplished by providing employees with effective encouragement and guidance to leverage their skills. Implementing a managerial coaching culture can be pivotal in motivating individuals to continually learn and apply acquired knowledge to their job roles. As drivers of organizational success, leaders must ensure alignment between organizational culture and knowledge management practices through coaching methods and incentives. Integrating knowledge-oriented leadership and a supportive work environment is vital for inspiring employees to exhibit positive work behaviours, such as dedication and commitment, ultimately enhancing overall job performance. By cultivating a culture of coaching and knowledge sharing, organizations can tap into the full potential of their workforce, driving

sustainable success.

2.1.   Theoretical and managerial implications

Positive work attitudes result from knowledge-oriented leadership and managerial coaching working together to create an environment where proactive motivation is encouraged (Castiello D'Antonio, 2018; Shamim et al., 2019). By combining these two components, businesses can lay the groundwork for proactive motivation, enabling staff members to take ownership of their work and strive for excellence. The findings of this study underscore the value of managerial coaching in improving employee outcomes and stress the function that it plays as a catalyst to realize the full potential of knowledge-oriented leadership (Ahmed et al., 2024; Jia et al., 2024; Mariam et al., 2019, 2020; Ribeiro et al., 2021; Than et al., 2024).

Knowledge leadership is one of the well-researched leadership abilities when it comes to organizational innovation and performance (U. U. Rehman & Iqbal, 2020; Taylor et al., 2019; Than et al., 2024). The primary objectives of traditional leadership programs are to develop transformational leaders, foster teamwork, motivate individuals, and promote collaboration. However, they frequently ignore the particular opportunities and difficulties facing libraries and library management, where fostering diversity in leadership development and protecting professional principles is essential (Hines, 2019).

Fostering a learning culture that promotes teamwork, innovation, and competitive advantage requires efficient and effective knowledge management competencies and practices (Hart & Rodgers, 2023; Hussain et al., 2019; Shah et al., 2021; Zhang et al., 2022). Whether used as a formal procedure or a management approach, coaching fosters learning and transformation, which in turn encourages innovation (Caine, 2019). Specifically, strengths-based micro-coaching improves employee engagement and productivity (Peláez et al., 2020). Moreover, studies have demonstrated the connections between leisure time and optimistic psychological states and a range of favourable results (Stebbins, 2018). On the other hand, the motivating effects of ethical leadership on employee success at work might be counteracted by crucial psychological states, including emotional tiredness (Dust et al., 2018).

The tertiary college libraries in Pakistan face several challenges and issues. A few of these include the lack of automation systems, staff training programs, budgetary allocations, and information communication infrastructure and tools. Almost all of these issues can be attributed to the lack of positive psychological states and work attitudes among those involved in policy implementation and the practice of the library profession, as well as those in

leadership and management positions. Unfortunately, little importance or priority is accorded to the library profession in the knowledge-seeking process. For this reason, college libraries are thought to be failing to learn how to survive in a competitive world.

The role of libraries and library managers must not be ignored when considering the performance of educational institutions (Cota, 2024; Hines, 2019; Machara & Jain, 2016; Rabasa & Abrizah, 2024). The primary goals of libraries are to encourage reading among the general public, provide resources and research opportunities to support the literacy movement, enhance the quality and quantity of education through improved access to the most recent information, and promote national integration through knowledge-based activities. In this context, adopting new technologies and effective management practices in academic libraries is inevitable to introduce innovative and unique library services (Luo & McKinney, 2015).

This study explains that positive work attitudes vary with changes in the psychological states of library employees, which can be improved through knowledge-oriented leadership and regular coaching of employees on work-related matters. These two approaches can help employees derive meaning from their work, feel secure, and ensure their availability to carry out work tasks effectively and innovatively. In conjunction with knowledge management practices, managerial coaching fosters information sharing and application, enhancing competencies that support the efficacy of teams and organizations (Jackson et al., 2006). The study results suggest that managers should value critical psychological states and take necessary measures to improve them.

2.2. Limitations and directions for future research

The present investigation is a noteworthy addition to the existing body of research. However, it is imperative to recognize several limitations that could potentially affect the broad application of study findings. Although Harman's single-factor test indicated that common method bias is unlikely to be a significant issue, the cross-sectional survey design may be susceptible to it. Future research could use data triangulation, objective metrics, or longitudinal or experimental approaches to address limitations such as sample size, demographic features, and social desirability bias. Future research can also expand upon this study by identifying and addressing these shortcomings, thereby offering a more comprehensive understanding of the intricate linkages between knowledge-oriented leadership, managerial coaching, and employee and organizational outcomes.

Nevertheless, future studies should consider employing longitudinal or experimental designs to validate the findings further and mitigate potential methodological limitations. Additionally, using self-reported measures may introduce some subjectivity, highlighting the need for multi-source data collection in future research endeavours. We also recommend replicating this study as a baseline model in the context of university libraries, considering the transformative impact of educational technologies on modern libraries as virtual knowledge hubs for future education. Future research should investigate the impact of technological advancements on the psychological well-being and work attitudes of library employees, incorporating information technology-related variables as moderators and mediators within this framework.

The small sample size in this study was considered adequate based on the rule of thumb. However, this limitation prevented the participation of diverse institutions from different sub-geographical areas, i.e., districts of Punjab. This aspect restricts the generalizability of findings. Future studies need to consider more extensive probability-based sampling techniques, such as stratified random sampling, to address sampling-related concerns. Moreover, we suggest examining the roles of library employees' personal information management motivation and capabilities, knowledge management culture, risk-taking willingness, and sustainable, innovative work behavior in this study. Addressing these limitations and exploring avenues for future research will provide a more nuanced understanding of the complex relationships between knowledge-oriented leadership, managerial coaching, and the work attitudes and psychological states of library employees.

3. CONCLUSION

Knowledge-oriented leadership positively cultivates positive work attitudes among employees, such as creative self-efficacy, affective commitment, and work engagement, by fostering their psychological states of meaningfulness, safety, and availability. Moreover, managerial coaching augments the beneficial effects of knowledge-oriented leadership, further enhancing critical psychological states and positive work attitudes. These results have significant implications for tertiary colleges, highlighting the importance of adopting a knowledge-oriented leadership approach and fostering a culture of managerial coaching. By doing so, colleges can reap the benefits of employees' psychological well-being and positive work attitudes. Ultimately, this approach can enhance employee-organization performance and success, underscoring the importance of prioritizing employee-centered leadership and development strategies, particularly in academic library settings.

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The Core Aspects of Mother Expressed Emotions as a Predictor of Vocational Identity in Pakistani Adolescents: A Structural Equation Modelling Approach

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Abstract

Expressed emotion refers to the intensity of emotional expression in mental health within the family context. Intensities of expressed emotion might be high or low and might be considered 'negative or 'positive. Mother-Expressed Emotion refers to the range of emotions expressed towards individuals. Adolescents are individuals who are in their next decade of life and face internal struggles or circumstances that might directly compromise their mental health. The home climate is the main element that influences adolescents. The current study aimed to identify and explore the role of mother-expressed emotions and their association with vocational identity. For this, a study was conducted on 500 mothers and 500 their adolescents from the 2022 to 2023 academic year. To measure the mother expressed emotions, the Parental Expressions of Emotion Scale and the Vocational Identity Scale were used for adolescents (Holland et al., 1980). The data were analyzed through structural equation modeling using SPSS 27 and AMOS. A significant positive prediction was found among mothers' expressed emotions, with positive remarks being 20% and warmth being 45% predictors of vocational identity in adolescents, while emotional over-involvement showed a -16% significantly negative predictor of vocational identity among adolescents. Mothers' expressed emotions are found to be a significant predictor of vocational identity.

1. INTRODUCTION

Vocational identity basically leads to the goals that become helpful for good career decision-making. A strong vocational identity facilitates a person to perform better in the workplace. This phenomenon is rooted in different assumptions related to career. First, it is underpinned by assumptions of the constancy of individual features and safe jobs in restricted organizations. Second, it helps in conceptualizes careers as the stable order of stages. Conceptions, like career preparation, vocational identity, career development, and career phases, each help to calculate people's regulation to work situations, assuming a relatively great

constancy of the settings and people's activities (Adăscăliţei, 2019). As children reach their adolescent stage and develop, they experience a variety of possible identities in different domains of functioning. In the field of occupation, identity refers to an individual's belief of who they would be as a worker, and what type of work would best suit his/her personality (Harrington & O'Shea, 1980).

Parents are the most influential people in their children's lives; they not only shape their children's behaviour but also impact throughout their lives. Parents are the initial source for developing a concept of self-worth and help them to learned effective ways for personal growth (Eccles & Wigfield, 2020). Especially during the adolescent years, the influence of parenting has a lasting impact on an individual's behaviors. Parenting refers to raising a child, not just because of a biological relationship (Craigie, 2012).

Formerly, very few studies reported the relationship between family environment and career development among adolescents, however. Despite persistent challenges, Pakistan has witnessed a steady increase in women's workforce participation, including that of mothers. Recent studies reveal that approximately 25% of Pakistani women engage in the labour market. However, cultural and societal norms continue to hinder greater involvement. Working mothers, in particular, face distinct struggles in striking a balance between professional and family responsibilities (Amber & Chichaibelu, 2023). Work-family conflict is also a significant issue, with many working mothers reporting lower job satisfaction due to the pressures of managing household and childcare duties. Studies suggest that individuals who work long hours or non-standard shifts are more likely to experience strain in their family relationships, which can contribute to reduced overall well-being (Faiza et al., 2023). In terms of vocational identity development among adolescents, maternal employment and the emotions expressed by mothers can play a role. For adolescents, their mothers' work-life balance and emotional availability influence their own career aspirations and identity. Research from Pakistan highlights the importance of supportive work environments that enable mothers to balance their careers with family connections, which in turn can positively impact their children's vocational identity development. Parental support in world exploration refers to the process of searching for an identity that influences an individual's development, shaped by various factors (Akhtar et al., 2022).

Donald Super's theory emphasizes that vocational identity evolves over the lifespan through different developmental stages: growth, exploration, establishment, maintenance, and disengagement. Adolescents typically engage in the exploration phase, where they test various career roles to form their vocational self-concept (Super, 1990). Although these theories have confirmed the

importance of the determinant of career development and have advanced the understanding of the nature of the relationship between children and parents. At this stage, very young children have an awareness of career development and possess better decision-making abilities (Seligman, 1988).

As noted above, vocational choices can certainly be influenced by family environment and social context. Most studies have focused on the positive outcomes of academic motivation, career decision-making, and development, as well as life satisfaction and well-being, which greatly depend on adolescents' perceptions of their parents' support (Chávez, 2016).

Few studies have found that mother express emotions and their relationship with youth psychopathology, and a study found positive associations between the mother's expressed quality of relationship and her child's working memory. As a measure of the emotional climate of the home, most extant studies involving expressed emotions have focused on relations between parents' use of expressed emotions and children's emotional development and regulation (Parola & Marcionetti, 2022). Research on the impact of parental influence, particularly the emotions expressed by mothers, on the vocational identity of adolescents in Pakistan is limited. While parental roles in education and social development have been studied, the specific effects of maternal emotional expressions on career identity development in adolescents remain underexplored. Considering the collectivist nature of Pakistani society, where family bonds and expectations strongly influence individual choices, this gap in the literature is significant.

Apart from institutional sources and social network support, individuals also receive vocational guidance from their family, more specifically, from their parents (Akhtar & Mughal, 2023). A mother's expression of positive remarks and warmth creates a nurturing environment that empowers a child to explore their interests, pursue their passions, and develop a strong vocational identity with confidence and self-assurance. On the basis of the literature review in the perspective of the current study, the following questions were formulated: (A) How do different types of mothers' expressed emotions (e.g., warmth, positive remarks, and emotional overinvolvement) impact the vocational identity development of adolescents in Pakistan? (B) To what extent does maternal warmth support adolescents in forming a strong vocational identity within the Pakistani cultural context?

2. METHODOLOGY

2.1.   Sampling

The target population was mothers (any age) and their adolescents, whose age range was 12-19 years, with a mean age of 16 years. A sample of 500 mothers and 500 adolescents were recruited by the rule of thumb as 5 to 10 observations on single questions (boys=46%, girls=54%) from the community and educational institutes by using convenient sampling strategy, after getting the educational institutions list from the District Education Office of some cities (Faisalabad, Multan and Sialkot) 15 educational institutions (8 schools and 7 colleges) were selected. Adolescents approached with permission of the authorities and teachers of 7th to 12th-grade students and graduates. To keep the ethical standards, only those adolescents were scrutinized whose parents gave consent to participate in the study. Students were divided into three groups using the World Health Organization criterion from 11 years to 13 years and from 17 years to 18 years.

2.2.   Measures

The Vocational Identity Scale (VIS), developed as part of the My Vocational Situation (MVS) inventory by Holland, Daiger, and Power in 1980, was designed to measure the clarity of an individual's vocational identity. It consisted of 18 items where respondents rated their level of agreement with statements related to their career interests and goals. Scores were typically summed to generate a total, with higher scores indicating a stronger and more defined vocational identity. The scale demonstrated high internal consistency, with Cronbach's alpha values ranging from 0.80 to 0.90, indicating reliability. Furthermore, it demonstrated good construct validity, correlating well with career decision-making self-efficacy and showing a negative correlation with career indecision. The scale is widely used in educational and career counselling contexts, particularly to assess adolescents and emerging adults as they explore career options and solidify their vocational identities (Holland et al., 1980; Robbins & Patton, 1985).

Parental expressed emotions scale developed by Akhtar and Bano in (2021) was used to measure the expressed emotions of critical comments, positive remarks, emotional overinvolvement, hostility, and warmth. It consisted of 31 items and respondents rated their behaviours on a five-point Likert scale from 1 to 5, and these emotions categories in two subcategories, positive (positive remarks and warmth) and negative (critical comments, hostility, and emotional overinvolvement). The scale established a high KMO value of 0.858 and a CFI

value of 0.95. PEES exhibited a high level of internal consistency and reliable psychometric properties of sub-scales as emotional over-involvement (0.81), positive remarks (0.85), and warmth (0.72). At the same time, the split-half reliability of sub-scales was emotional over-involvement (0.75), positive remarks subscale was (0.85), warmth and subscale were (0.81), at a 0.01 level of significance. Each category score represented the kinds of expressed emotion by parents.

2.3.   Procedure

The cross-sectional study was conducted in different cities (in Pakistan) from September 2022 to June 2023. The Ethical Research Review Committee (ERRC) of Riphah International University, Faisalabad, approved the procedure. The methods and materials included in the current study have been reviewed, permitted, and endorsed by the Board. Four key aspects of individual human rights —self-esteem, skill, responsibility, and integrity —were addressed in the study (Akhtar et al., 2022).[20] The target population was mothers (any age) and their adolescents, whose age range was 12-19 years, with a mean age of 16 years. Adolescents approached with permission of the authorities and teachers of 7th to 12th-grade students and graduates. To keep the ethical standards, only securitized those adolescents whose parents gave consent to participate in the study. Students were divided into three groups using the World Health Organization criterion from 11 years to 13 years and from 17 years to 18 years. The adolescents have been clearly instructed about the instruments and response choices. The Vocational Identity Scale, with a demographic sheet, was provided and applied to adolescents. The researcher selected only the married mothers of the adolescents and excluded all who were single or divorced and suffered any mental or physical disability. They were approached at their workplace and convenience. For measuring the role of mother expressed emotions, the Parental Expressions of Emotion Scale was administered to mothers. They were instructed to read the items cautiously while responding. It was made clear to the participants that participation would be voluntary, confidentiality would be maintained, and ethical considerations would be adhered to by the researchers. Data was analysed by using SPSS-27 version by applying frequencies, regression analysis, and AMOS-27 for structural equation modelling.

3.   RESULTS

Structural equation modelling was performed to test the research model. The data was analyzed in four steps; first, data cleaning was done by removing missing values. In the second step, descriptive statistical measures were

computed for various socio-demographic variables. A further normality analysis was run, representing the Z score (standard deviations) away from the mean (Schober et al., 2020). Descriptive statistics are applied to represent demographic characteristics of data. (Table-1,2) The sample consisted of 500 mothers and 500 adolescents. Among the mothers, the majority (37%) were aged 36-45, followed by 25-35 (29%) and those above 46 (33%). Most mothers reported a monthly income of 0-5000 (76%), with fewer earning 10,000-30,000 (14%) or above 31,000 (9.4%). A large proportion of mothers (76%) were housewives, while 12% were self-employed or employed. Nearly half (46%) were educated, and 68% resided in urban areas, with the remaining 32% in rural areas. The family system was fairly balanced, with 48% in extended families and 52% in nuclear families.

The adolescent sample comprised 46% boys and 54% girls, with ages distributed as follows: 9-12 years (12%), 13-15 years (26.4%), and 16-19 years (15.8%). Institutionally, 16.4% of adolescents attended school, 35% attended college, and 2.8% were in other educational settings. Regarding siblings, 51% had 1-3 siblings, while 3.2% had four or more siblings. Table 4 presents the regression analysis, which was applied to illustrate the predictive relationship among the variables. Results revealed that mothers expressed emotions of emotional over-involvement (16%), negatively significant positive remarks (20%), and warmth (45%) variations in vocational identity, with $p < 0.00$ representing a strongly significant result. In the next step, the measurement model was tested using confirmatory factor analysis (CFA). The rotated component matrix determined what the components represent as factors (Table 5). For estimating the measurement model, confirmatory factor analysis, including factor loading, average variance extracted, and Cronbach's alpha, is very important regarding any scale (Akhtar & Abbas, 2024). and composite reliability are presented in Table 6. Then, finally, a structural equation model (SEM) was generated by testing the hypothesis. The depicted model explained three exogenous variables as warmth, positive remarks, and emotional over-involvement, and one endogenous variable as vocational identity. (Figure-1)

In the Structural equation model, root mean square residual (SRMR) and normed fit index (NFI) are the two standard measures of determining measurement model fit. In current research, both measures have been used to determine the overall model fit. The thresholds for these measures are SRMR<0.05 and NFI>0.85(81). The model fit results showed that the SRMR was 0.46, which was less than the threshold criteria, and the estimated NFI is 0.78, which is also appropriate and near the threshold criteria. Both these criteria assured the fitness of the measurement model.

4. DISCUSSION AND CONCLUSION

In Pakistani culture, family dynamics and gender roles significantly influence the relationship between parents and children, especially in vocational guidance. Mothers often play a pivotal role in emotional expression and support, which can impact adolescents' vocational identities. The findings from the current study indicate that maternal expressed emotions, specifically warmth and positive remarks, are significant predictors of adolescents' vocational identity. These results align with existing literature that emphasizes the importance of parental emotional support in fostering children's career development (Delvecchio & Salcuni, 2016; Cordeiro, 2018). Additionally, the observed negative influence of emotional over-involvement suggests that while support is essential, excessive parental involvement can hinder adolescents' autonomy in vocational decision-making. Results showed that adolescents whose mothers expressed their emotions in the form of warmth and positive regard had a clear and secure understanding of their career goals, abilities, educational interests, and personal values. It has been concluded that mothers should practice positive emotions so that their adolescents can grow positively. Understanding demographic variables can provide insight into how these factors contribute to adolescents' career development and decision-making processes.

The outcome of the current research indicated that vocational identity in adolescents is significantly and positively influenced by parental styles of warmth, positive remarks, and emotional over-involvement. Previous literature also provides related research, as in a study that explored the relationship between perceived parenting, psychological needs, and identity development and psychosocial adjustment in 12th-grade students (Ahmed et al., 2023).

Findings suggest that a mother expressing emotions is a protective factor for career decision-making. For doing so in the current study, a structural equation model has been applied, which together explains 0.43 of the variance; however, the total variance explains 0.65, which is slightly better for the appropriate acceptance of the hypothesis. Mother expressed emotions is a direct predictor of vocational identity in adolescents. Similarly, the results revealed that emotional overinvolvement, positive remarks, and warmth were significant predictors of vocational identity in adolescents ($p < 0.001$). This is in line with previous research showing that the adolescents' perception of their parents as need-supportive relates to experiences of basic need satisfaction (Song et al., 2022), which, in turn, is associated with higher confidence in proactive exploration and commitment making and with the experience of greater well-being during critical career transitions as described by Cordeiro (2018). Results

of earlier studies conformed to the findings of current research that adolescents whose mothers expressed their emotions in the form of warmth and positive regard have a clear and secure understanding of their career goals, abilities, educational interests, and personal values. Previously, this kind of study found the role of teachers' emotional support in career counselling (Haerens, 2015).

The study concluded that mothers should practice positive emotions so that their adolescents can grow positively. Moreover, the current study focuses solely on positive emotions in relation to adolescents' vocational identity. In further studies, negative expression of emotion might be planned. This research highlights the significant impact of maternal expressed emotions on adolescents' vocational identity. The positive relationship between supportive emotional expressions and clear career aspirations suggests that nurturing family environments are crucial for fostering healthy identity development. Therefore, targeted interventions may be planned to enhance maternal emotional expression, which can lead to stronger vocational identities in adolescents, thereby promoting their overall well-being (Akhtar & Abbas, 2024; Delvecchio & Salcuni, 2016). Policymakers should implement parental education programs that emphasize the importance of emotional expressions within the home. Workshops designed to help mothers create supportive emotional climates could significantly improve adolescents' career development outcomes.

Additionally, policies that encourage work-life balance for mothers are essential, allowing them to engage positively with their children. This initiative aligns with the United Nations Sustainable Development Goals (SDGs), particularly Goal 4 (Quality Education) and Goal 5 (Gender Equality), which advocate for supportive educational environments and family structures that promote the healthy development of children and adolescents (Langton & Berger, 2011; Cordeiro, 2018). While the study highlights the influence of maternal expressed emotions on vocational identity, it has limitations due to its reliance on self-reported data and a cross-sectional design. Self-reports can introduce bias, as responses may reflect social desirability rather than true experiences, especially in a collectivist culture like Pakistan. The cross-sectional approach also limits causal inferences, capturing only a single time point. Future research could address these issues by using longitudinal designs to better understand the evolving impact of mother expressed emotions on vocational identity.

Table 1: Demographic Characteristics of the Mothers' Sample (N=500)

Variables	Mothers	N	%
Age	25-35	147	29%
	36-45	187	37%
	46-above	166	33%
Monthly Income	0 to 5000	380	76%
	10000-30000	73	14%
	31000 above	47	9.4%
Occupation	Self Employed	60	12%
	Employed	60	12%
	Housewife	380	76%
Education	Educated	233	46%
	Uneducated	38	7.6%
Residence	Urban	340	68%
	Rural	60	12%
Family system	Extended	240	48%
	Neutral	260	52%

Table 2: Demographic Characteristics of the Adolescent Sample (N=500)

Variables	Adolescents (N) (boys=46% & girls=54%)	%
Age		
9-12 Years	60	12%
13-15 Years	132	26.4%
16-19 Years	79	15.8%
Institution		
School	82	16.4%
College	175	35%
Others	14	2.8
Siblings		
1-3	255	51%
4 & above	16	3.2%

Table 3: Normality Statistics for Variables of the Study (N=1000)

| Variables | Mean | Median | Skewness | | Shapiro-Wilk | | Kurtosis | | |
			Statistic	SE	z.value	Sig.	Statistic	SE	z.value
PEE	107.03	108.00	-.121	.109	1.11	.002	-.577	.218	2.64
VI	18.91	17.99	-.729	.108	6.60	.000	-.162	.218	0.78

Table 4: Summary of linear Regression Analysis (N=500)

Variables	R	R^2	ΔR^2	F	P
Expressed Emotions of Mothers as predictor of vocational identity					
Emotional over-involvement	0.40	-0.165	0.164	98.73	0.00[b]
Positive remarks	0.45	0.204	202	127.25	0.00[b]
Warmth	0.67	0.452	0.451	410.49	0.00[b]

Note: Mother Expressed emotions (emotional over-involvement, positive remarks and warmth) as a predictor of vocational identity in adolescents

Table-5: Factor Loading of Mother expressed emotions scale and vocational
identity after Varimax Rotation (N=500)

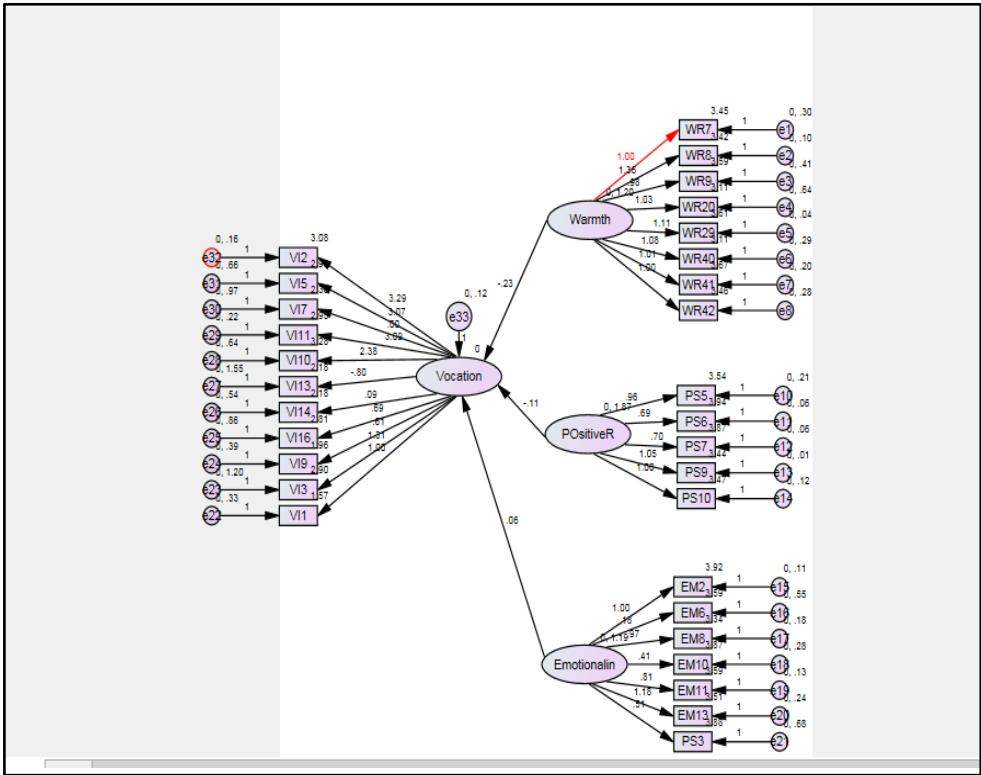| Sr. #	Item No.	Warmth I	PSR (II)	EOI (III)	VI (IV)
1	7	0.91			
2	42	0.91			
3	8	0.88			
4	9	0.88			
5	29	0.88			
6	41	0.86			
7	40	0.80			
8	20	0.67			
9	9		0.81		
10	3		0.80		
11	7		0.79		
12	10		0.77		
13	6		0.74		
14	5		0.96		
15	14			0.89	
16	8			0.81	
17	2			0.80	
18	13			0.79	
19	6			0.77	
20	10				0. 96
21	16				0. 89
22	11				0.85
23	15				0.82
24	18				0.77
25	19				0.76
26	13				0.81
27	14				0.74
28	17				0.69
29	15				0.67

Figure 1: Structural equation modelling for the mother expressed emotions and vocational identity in adolescents

Table 6: Improved Model Fit Indices for Mothers Expressed Emotions and Vocational Identity (N=1000)

CMIN/DF	CFI	RMSEA	SRMR	NFI	TLI	P Value
35.279	0.719	0.46	0.56	0.75	0.80	.000
0.50	0.87	0.041	0.040	0.835	0.852	.000

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Relationship Between Emotions and Resilience in the Face of Adversity: A Study on Older Adults in Pakistan

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Abstract

This study aims to investigate the relationship among adverse life events, positive and negative affect, and resilience in older adults. The research further examines whether positive and/or negative affect serve as mediators between adverse life events and resilience. A sample of N=103 older adults was selected from Lahore, Pakistan, through purposeful sampling. Given the unique cultural and socio-economic environment of Pakistan, understanding these relationships can provide insight into the mental well-being of older adults within this geographical region. Data collection measures included the Geriatric Adverse Life Events Scale (GALES), Positive and Negative Affect Schedule (PANAS), Brief Resilience Scale (BRS), and a demographic form. The study used a cross-sectional research design. The results revealed a significant correlation between resilience and both negative life events and positive and negative affect. However, the analysis showed that affect did not significantly mediate the relationship between adverse life events and resilience. Furthermore, gender differences emerged, with females reporting higher negative affect scores and males exhibiting greater resilience. It highlights the importance of prioritizing the mental well-being of older adults, particularly given the prevalence of negative events in later life.

1. INTRODUCTION

There has been a rapid increase in the global population of older adults, specifically those above 60 years of age. According to the WHO (2020), the number is estimated to increase to 2.1 billion by 2050, from 1 billion in 2019, especially in developing countries. This aging population is a major challenge for both developing and developed countries. Many countries around the world have adopted individualistic values, a trend that Pakistan, once primarily collectivist, has also begun to adopt. Traditionally, Pakistani society has emphasized collective values and strong family support for the elderly (Azeem & Naz, 2015). However, urbanization and changing priorities among younger generations have led to a shift in societal attitudes, weakening this support system (Cassum et al.,

2020).

Older individuals face a myriad of stressors, including family bereavement, economic hardships, health issues, and cognitive decline. Negative life events (NLEs) encompass changes that transpire across various life domains, such as family or occupational settings. These events, often perceived negatively, can result in adverse consequences both psychologically and physically (Zhang et al., 1987). McGinnis (2018) notes that NLEs are higher in individuals with low resilience, which frequently results in depression, loneliness, and anxiety (Dasti et al., 2019). Kaleem et al. (2018) report the prevalence of moderate to severe depression to be 77% in a cross-sectional study carried out in Lahore. Erik Erikson's psychosocial developmental stages offer valuable insights into this phenomenon. His final stage emphasizes the importance of achieving ego integrity and avoiding despair in later life. The successful resolution of this crisis involves reflecting on one's life events, assimilating them, and finding a sense of acceptance. However, difficulties reconciling with past events can lead to regret and despair (Iqbal & Amin, 2018).

In managing negative life events, the concept of positive and negative affect becomes pivotal. Watson and Clark (1997) highlighted the role of emotions in how an individual perceives their well-being. Positive affect (PA) encompasses pleasant emotions like joy that contribute to positive life experiences and satisfaction in life, while, on the other hand, negative affect (NA) encompasses undesirable emotions such as sadness linked to emotional disturbances and mental disorders. Schricker et al. (2023) reported that these daily negative life events were strongly related to a significant increase in the negative effect, and the positive events resulted in a strong increase in PA and positive thoughts. Maintaining a balance between these dimensions is vital for optimal well-being. Resilience emerges as a critical factor in this equation. Dasti et al. (2019) describe resilience as the ability to rebound from adversity. Montero-Marin et al. (2015) further noted that older adults who exhibit higher resilience tend to manage stressors better, maintain better mental health, and experience greater life satisfaction. According to Sheerin et al. (2018), highly resilient individuals have decreased chances of developing disorders like Generalized Anxiety Disorder (GAD) or Major Depressive Disorder (MDD). However, Sardella et al. (2022) observed that older women have lower resilience than older men.

2.   THEORETICAL FRAMEWORK

When exploring the literature, the transactional model of stress and coping provides insight into how NLEs can lead to negative affectivity and subsequently impact resilience. Elderly individuals utilize coping mechanisms, like seeking

social support, to handle NLEs. Positive and negative affect play a pivotal role, with a challenge-focused approach leading to positive affect and problem-focused coping. This model underscores the complex interplay among NLEs, affect, and resilience (Lazarus & Folkman, 1986).

Additionally, the broaden-and-build theory suggests that positive emotions broaden cognitive processes, leading to resource-building behaviours and resilience development (Fredrickson, 1998). This study's conceptual framework thus integrates NLEs, affect, and resilience within the context of these psychological theories, ultimately contributing to our understanding of the mental well-being of older adults.

2.1.   Goal of the study

The primary goal of this research is to investigate the growing vulnerability faced by older adults in Pakistan amidst shifting societal dynamics, making them increasingly susceptible to the adverse consequences of NLEs. This study aims to survey the emotional repercussions of these adverse life events on older adults and investigate their capacity for resilience in the face of such challenges. Moreover, this research highlights the unique cultural context of Pakistan and the scarcity of research on this particular demographic, emphasizing the necessity of studying both positive and negative affect to understand if these factors, in any way, shape resilience in elderly individuals. Firstly, the objective of this study is to understand the relation between adverse life events, affect, and resilience in elderly individuals. Specifically, the research seeks to determine whether positive and negative affect serve as a mediating variable in the relationship between negative life events and resilience. Additionally, the study aims to highlight the gender-based disparities in these aspects, thereby contributing valuable insights to the field of gerontology. The objectives of the study are as under.

- To investigate the correlation between NLEs, affect, and resilience in older adults.
- To study if affect mediates the relationship between NLEs and resilience among older adults.
- To examine gender differences between the experiences of NLEs, affect, and resilience in older males and older females.

Below are the hypotheses to find the study objectives.

- There is a significant relationship between NLEs, affect, and resilience among older adults.

- Affect is likely to mediate the relationship between NLEs and resilience among older adults.
- Older males experience more NLEs, affect, and resilience than older females.

3. RESEARCH DESIGN

3.1. Sample and sampling strategy

The study used a cross-sectional research design. Data for this research were collected using a purposive sampling technique. An a priori power analysis was conducted using G*Power 3 (Faul et al., 2007) for linear multiple regression, assuming a large effect size (d = .35) and an alpha level of .05. Results indicated that a sample size of 77 participants was required to achieve a power of .95. To account for potential non-responses, the study initially recruited 150 participants, resulting in a final response rate of N = 103 older adults. The sample was drawn from Lahore city and included older individuals aged 60 years and above (male = 46, female = 57), with an average age of M = 67.73 years (SD = 7.22).

Specific inclusion and exclusion criteria were applied to ensure the sample's relevance to the study's focus on resilience and adverse life events. Participants were included based on their proficient understanding of the English language and a minimum of two decades of residency in Pakistan to ensure a stable cultural and environmental context. Given the study's focus on negative life events (NLEs), participants were also required to have experienced at least one significant adverse event, such as the loss of a loved one, a major health decline, or changes in economic status, common in later life stages. The exclusion criteria were designed to minimize confounding effects and improve data quality. Older adults experiencing severe psychological illnesses, such as schizophrenia, bipolar disorder, or severe depression, were excluded. Furthermore, individuals with cognitive impairments or neurological disorders that could hinder their ability to comprehend study instructions and procedures were not included in the study.

3.2. Instruments

Demographic questionnaire collected basic information on participants' age, gender, marital status, family size, living arrangement (nuclear, joint family, or old age home), and any severe physical or psychological illnesses. The Geriatric Adverse Life Events Scale (GALES) measured negative life events (NLEs) over the past five years using a 26-item checklist. Participants marked "yes" for experienced events, with the final adversity score based on the number

of "yes" responses (Devanand et al., 2002). Positive and Negative Affect Schedule (PANAS) assessed positive and negative affect with 20 items rated on a 5-point scale. Separate scores for positive affect (PA) and negative affect (NA) indicated overall emotional states (Watson & Clark, 1988). The Brief Resilience Scale (BRS) evaluated resilience as the ability to bounce back from adversity using six items rated on a 5-point scale. Higher scores reflected greater resilience (Smith et al., 2008).

3.3. Procedure

To conduct the present study, institutional approval was obtained, and permissions were secured from the authors of the scales used in the study. Given the cultural context of the participants, the Geriatric Adverse Life Events Scale (GALES) was reviewed for cultural relevance. Although no formal adaptation was performed, the scale was deemed appropriate for the study population based on its established use in similar contexts The decision not to adapt the scale was based on the fact that the core adverse life events captured by the GALES, such as loss of family, health issues, and retirement, are universally relevant to older adults, including those in Pakistan. However, future studies might consider validating or adapting instruments like GALES to ensure cultural nuances are better captured. The data was collected over a period of 4-5 weeks. Participants (N = 103) who met the inclusion criteria and had a good command of English completed the self-report questionnaires. These included the demographic questionnaire, GALES, PANAS, and BRS.

The data collection process involved both verbal and written instructions to ensure clarity in completing the questionnaires. The questionnaires were administered in a paper-and-pencil format, and participants were given time to answer at their own pace. Some participants required additional help in answering the questions, so the researcher asked follow-up questions in person to facilitate their better comprehension. Data was collected across multiple locations in Lahore, including participants from various settings such as private residences, community centres, and elderly care homes, ensuring a broad representation of the older adult population. The data collection lasted approximately 20-30 minutes per participant. Participants in elderly care homes were given extra time and assistance if needed to ensure full participation. No major difficulties were encountered in the process, but some participants required additional clarification on certain items, which were addressed by the researcher during the data collection phase.

Ethical considerations for the study were carefully followed. Informed consent was obtained from all participants prior to participation, with detailed

explanations about the study's purpose, procedures, and potential risks. Participants were assured of their anonymity, the confidentiality of their data, and their right to withdraw at any time without consequence. Demographic data collection was handled with a strong emphasis on privacy and identity protection. Ethical guidelines were strictly adhered to throughout the research process, ensuring the integrity and safety of participants

4.   STATISTICAL ANALYSIS

Statistical analysis for this study was conducted using the Statistical Package for Social Sciences (SPSS version 21). Descriptive statistics were first employed to analyse demographic data and assess the internal consistency of the scales used in the study. For inferential analysis, Spearman's Rho Correlation, Mann-Whitney U-test, and parallel mediation analysis (Model 4 in PROCESS 4.2) were used to examine relationships, gender differences, and mediation effects, respectively, among the study variables.

The use of both parametric (e.g., Spearman's Rho Correlation) and non-parametric tests (e.g., Mann-Whitney U-test) requires justification. Given the sample size of 103 participants, normality assumptions were not fully met for all variables, particularly for negative life events (NLEs), which prompted the use of non-parametric tests. While non-parametric tests are less sensitive to violations of normality and skewed distributions, it is recognized that their use in combination with parametric tests could potentially weaken the robustness of the results. Therefore, for the current study, the decision to combine both parametric and non-parametric tests was guided by the need to ensure more accurate results for variables with differing distributional properties.

To account for extreme outliers in the NLEs variable, which were detected during the preliminary analysis, prior sum scores were used to reduce the impact of these extreme values (Devanand et al., 2002). This strategy was adopted to improve the robustness of the analysis, ensuring that outliers did not unduly influence the relationship between NLEs and resilience. Meanwhile, traditional methods were employed to measure positive affect (PA), negative affect (NA), and resilience, allowing for a clear and interpretable analysis.

4.1.   Results

The demographic information of the sample includes gender, family system, age, and marital status. The sample consists of 103 older adults from the city of Lahore. Table 1 shows that 44.7% were male respondents and 55.3% were female. Most participants, i.e., 67%, were married. The majority of the participants

belonged to the joint family system, followed by 43.7% living in a nuclear family system. Only 25.2% reported suffering from any form of severe physical illness.

Table 1: Socio-demographic Characteristics of Participants

Socio-demographic characteristic	*n*	%
Gender		
Female	57	55.3
Male	46	44.7
Marital status		
Single	3	2.9
Married	69	67
Divorced	4	3.9
Widowed	27	26.2
Family system		
Living Alone	0	0
Nuclear	45	43.7
Joint	52	50.5
Old Age Home	6	5.8
Severe Physical Illness [a]	26	25.2
Severe Psychological Illness [a]	0	0

Note. N = 103. Participants were on average 67.73 years old (*SD* = 7.22).

The average number of children was 3.37 (*SD* = 1.90). The average number of family members was 8.11 (SD = 5.75). This indicates the number and percentage of participants responding "yes" to this question. Table 2 shows the NLEs on the basis of their occurrence in the last 5 years (Hardy et al., 2002). Out of the 103 participants who responded, 1.0% of the respondents did not state the occurrence of any of the 26 types of adverse events during the preceding 5 years, 33% of them reported to have experienced 1-4 types of events, 42.7% reported 5-9 types of events and about 20.4% stated that they experienced more than 10 types of events in the past 5 years. Most frequently reported event was the death of a non-first-degree relative or close friend (N= 76), which was followed by illness of a close family member (N= 55). Marital separation/divorce was the least reported event by 3.9% respondents. Events like retirement or loss of employment were frequently reported by males, while the occurrence of a new major physical illness was reported more frequently by females. Table 3 shows the alpha coefficients, mean values, and standard deviations for the study variables. The results indicate good reliability estimates, indicating internal consistency across all scales.

Table 2: Negative life events during the previous 5 years

Negative Life Events	Males (*n*= 46)		Females (*n*= 57)	
	n	%	*n*	%
Major financial difficulties	17	37	18	31.6
Retirement	20	43.5	7	12.3
Sudden Loss of Employment	10	21.7	6	10.5
New Major Physical Illness	11	23.9	30	52.6
Long-Standing Major Physical Illness	18	39.1	23	40.4
Difficulty in Getting Adequate Professional Services	8	17.4	9	15.8
Major Physical Illness of a Close Family Member	23	50	32	56.1
Accident or Injury	7	15.2	11	19.3
Victim of Crime	6	13	8	14
Death of Spouse	4	8.7	6	10.5
Death of a Child	5	10.9	6	10.5
Death of a Parent	22	47.8	21	36.8
Death of a Brother or Sister	21	45.7	18	31.6
Death of Other Relative or Close Friend	34	73.9	42	73.7
Death of a Pet	7	15.2	9	15.8
Forced to Leave or Lose Home	4	8.7	6	10.5
Voluntarily Changed Place of Residence	17	37	22	38.6
Marital Separation or Divorce	1	2.2	3	5.3
Other Marital Difficulties	10	21.7	13	22.8
Major Family Problems/Conflicts other than with Spouse	15	32.6	22	38.6
Major Problems with Friends or Neighbours	11	23.9	8	14
Breakup of a Long-Term Relationship other than Marriage	3	6.5	9	15.8
Separation from any other Close Friend or Relative	6	13	16	28.1
An Individual Moved out of your Household	7	15.2	14	24.6
An Individual Moved into the household	9	19.6	14	24.6
Became a Caretaker	13	28.3	18	31.6

Note. N = 103. Females, on average, experienced 6.9 events (*SD* = 3.63). Males, on average, experienced 6.7 NLEs (*SD* = 4.24).

Table 3: Psychometric Properties of Study Variables

Scales	*M*	*SD*	Range	*Cronbach's a*
Number of Negative Events	6.80	3.89	0-26	.74
Positive Affect	30.53	7.19	10-50	.80
Negative Affect	23.49	8.18	10-50	.86
Resilience	18.37	5.08	6-30	.82

Table 4 shows the Spearman Rho correlation among the variables tested in the study. The results identify that resilience is significantly, negatively and weakly related to negative life events. This implies that older adults who have encountered more negative events are less likely to be resilient. Moreover, resilience has a significant, positive and moderate relationship with positive affect stating that older adults with high resilience have high scores on positive affect. Resilience also has a significant, negative and moderate relationship with negative affect which depicts that higher negative affectivity is likely to result in older adults being less resilient.

Table 4: Correlations for Study Variables

Variable	1	2	3	4
1. NLEs	__			
2. PA	-0.15	__		
3. NA	0.05	-0.03	__	
4. Resilience	-0.26**	0.38***	-0.43***	__

Note: NLE Negative Life Events, PA Positive Affect, NA Negative Affect.
*p <.05, **p < .01, ***p < .001

It was hypothesized that affect is likely to be a mediating variable between NLEs and resilience among older adults. The parallel mediation model analysis was done despite the insignificant relationship between the NLEs (IV) and the PA and NA (mediators) in order to check for estimated indirect effects in the absence of a significant IV-mediator relationship by bootstrapping methods (Hayes, 2013).

Table 5 shows parallel mediation analysis using SPSS PROCESS Macro 4.2 (Hayes, 2022) Model 4, conducted to investigate the mediation effects of PA and NA between NLEs and resilience. A bias-corrected nonparametric bootstrapping technique with 5,000 resamples was employed to estimate the direct, indirect, and total effects of NLEs on resilience in the study sample. The table shows that the direct effect of adverse life events (independent variable) on resilience (dependent variable) is significant and negative. Moreover, the indirect effect of NLEs on resilience, both through PA and NA, is not substantial. So, positive and

negative affect, therefore, did not significantly explain the relationship of NLEs and resilience.

Table 5: Indirect Effect of NLEs on Resilience through PA and NA

Criterion Variable	Predictor Variable			*95% CI*	
		β	*p*	*LL*	*UL*
Direct Effects					
Resilience	NLE	-.04*	.03	-.08	-.01
PA	NLE	-.04*	.05	-.07	-.00
Resilience	PA	.38***	.000	.19	.57
Indirect Effect					
Resilience	NLE through PA	-.01	---	-.03	.00
Direct Effects					
Resilience	NLE	-.04*	.03	-.08	-.01
NA	NLE	.004	.84	-.04	.05
Resilience	NA	-.44***	.000	-.60	-.27
Indirect Effect					
Resilience	NLE through NA	-.00	---	-.02	.02

Note: NLE= Negative Life Events, PA= Positive Affect, NA= Negative Affect, *LL*= Lower Limit, *UL*= Upper Limit, *CI*= Confidence Interval, Coding for NLE (No=0, Yes=1), **p* <.05, ***p* < .01, ****p* < .001.

Table 6 indicates that there is a statistically significant difference between males and females in negative affect. The results revealed a greater level of negative affectivity in females as compared to males (U 981.0, p = .028, two-tailed). Moreover, the results revealed a significant difference in resilience between males and females. The results revealed a greater level of resilience in males as compared to females (U 935.0, p = .012, two-tailed).

Table 6: Nonparametric Mann-Whitney U-test ** p* < .05

Variable	Males (*n* = 46)	Females (*n* = 57)	Mann-Whitney	z	*p*
	Mean Ranks	Mean Ranks	U		
Negative Life Events	50.49	53.22	1241.5	-.463	.643
Positive affect	53.82	50.54	1227.5	-.555	.579
Negative affect	44.83	57.79	981.0	-2.191*	.028
Resilience	60.17	45.40	935.0	-2.499*	.012

5. DISCUSSION

Negative life events (NLEs) are prevalent in individuals' lives, impacting various developmental stages, including old age (Sheerin et al., 2018). Older individuals are more likely to have experienced the deaths of family, friends, losses of work responsibilities or roles, changes in relationships, declining health, and changes in economic positions (Azeem & Naz, 2015). These challenges can lead to mental health disturbances, prompting older adults to employ coping mechanisms (Dasti et al., 2019). Therefore, the present research aimed to investigate the relationship between NLE and resilience with the mediating effect of PA and NA, using the broaden-and-build theory as a conceptual framework.

The broaden-and-build theory (Fredrickson, 1998) posits that positive emotions expand individuals' thought-action repertoires, enabling them to build enduring personal resources over time. By broadening cognitive and behavioural capacities, positive emotions help individuals develop resilience, foster adaptability, and cultivate coping mechanisms that are crucial during times of adversity. In this study, the theory provides a lens for understanding how older adults can leverage positive affect as a pathway to resilience, even in the face of challenging life circumstances. By examining PA and NA as mediators, this study integrates these psychological processes to explain how emotional responses to NLEs may influence resilience. Through this framework, we aim to illuminate the adaptive value of positive emotions and their potential for resource-building, particularly within the distinct context of Pakistani older adults.

The study sample consisted of 103 older adults from Lahore, Pakistan, representing the diversity of family systems in the country. Results revealed varying experiences of NLEs over the past five years, with some participants reporting multiple adverse events. The study examined negative life events experienced by older individuals over the past five years to capture a comprehensive range of significant events without introducing recall bias, providing insight into the average number of events and overall adversity faced by this population (Hardy et al., 2002). Notably, males often reported NLEs related to employment and retirement, while females had higher scores for physical illness, aligning with gender-specific stressors (Iftikhar et al., 2014; Carmel, 2019).

The study's hypothesis of a significant correlation between NLE and resilience was accepted. The results showed that the higher the number of negative experiences faced, the lower the resilience in older adults. Cumulative adversity (Wilson, 2020), characterized by a higher number of NLEs, was associated with lower resilience and is consistent with the previous literature (Connor &

Davidson, 2003). The psychosocial stress resulting from the NLEs also negatively correlates with resilience (Dasti et al., 2019). Chronic exposure to adversity can deplete an individual's mental and emotional resources, impacting their resilience (McGinnis, 2018). However, contextual factors may also play a role in this complex relationship.

Surprisingly, the study did not establish a significant relationship between NLEs and affect, contrary to expectations and previous research (Schricker et al., 2023; Yang et al., 2020). Previous research indicates a positive relationship between negative life events and psychological distress, whereas a negative relationship with psychological wellbeing and social support (Iqbal & Amin, 2018). One possible justification for this could be that in this unique population of Pakistani older adults, NLE may not always be related to a negative effect because this population might be employing cognitive strategies, such as positive reappraisal, to find a meaningful opportunity in those negative events. Additionally, the absence of a relationship between NLEs and positive affect may suggest variations in resilience and optimism levels among individuals in response to adversity (Infurna & Luthar, 2016). The study hypothesis regarding a relationship between the PA and NA and resilience was supported in light of the current literature (Goradel et al., 2016). Montero-Marin et al. (2015) stated that positive affect was associated with greater resilience, as individuals experiencing positive emotions tend to engage in effective coping behaviours. Conversely, higher negative affectivity was linked to lower resilience, often due to maladaptive coping strategies. It can exacerbate the adversity and reduce the ability to bounce back from difficult situations.

Furthermore, the study's hypotheses about PA and NA playing mediating roles in the relationship between NLEs and resilience were not supported. This outcome is partially in line with the previous literature, which states that affect can be related to NLE and resilience, but they are unlikely to completely mediate this relationship (Infurna & Jayawickreme, 2019). The older adults in this study, having experienced a full life, may have developed effective coping mechanisms over time, thereby reducing the impact on their resilience. The relationship between positive affect and its negative impact on resilience is likely to be weaker in older populations than in younger populations studied in previous literature, as the latter are still developing mitigating strategies (Yeung & Fung, 2007). Furthermore, the cultural differences of the Pakistani collectivist culture could have influenced the findings of this study, as more than half of the study sample belonged to the joint family system, which can consist of a loving atmosphere and friendly relationships, highlighting the role of social support in this multifaceted area of resilience (Ahmed, 2011).

The study hypothesis regarding gender differences was partially accepted. The older males exhibited higher resilience, which could be attributed to their social interactions and adaptability (Yıldırım & Çelik Tanrıverdi, 2020). The study results indicated a high level of negative affect in the Pakistani older females, which can be related to their social and cultural roles in comparison to men, consistent with previous literature in Pakistan (Azeem & Naz, 2015). It may make them more vulnerable to adversity, as social and cultural factors may be placing greater stress on women (Thomsen et al., 2005).

The strengths of this study lie in its novelty within the Pakistani context, thereby contributing to the indigenous literature. Moreover, by focusing exclusively on older adults, the study enhances the external validity of its findings for this demographic. The use of reliable and validated measures further bolsters the study's reliability, and strict adherence to ethical guidelines ensures the integrity of the research process.

6. CONCLUSION

The paper examined the relationship between negative life events (NLEs), positive affect (PA), negative affect (NA), and resilience among older adults, while studying the potential mediating influence of PA and NA. The findings of this study did not reveal PA and NA to have a mediating role on the NLE-resilience link, implying the existence of alternative influential factors in bolstering resilience when confronted with adverse life events. These outcomes shed light on the complexity of resilience in elderly individuals and underscore the need for future investigations to identify additional factors such as social support, spirituality, and coping strategies. By broadening our comprehension of resilience in the context of Pakistani older adults, we can better address their unique needs and enhance their overall well-being.

The relatively small sample size of Pakistani older adults hampers the generalizability of findings. Lengthy English questionnaires may have induced hesitance among participants; future studies should consider using shorter, native-language questionnaires to enhance participant comfort and data accuracy. However, future studies may benefit from using only one type of analysis (parametric or nonparametric) based on the distribution of the data. Additionally, the cross-sectional design restricts causal inference, suggesting that longitudinal studies could provide a clearer view of how resilience and emotions evolve over time. Although the introduction highlighted the significance of the family system and its changing dynamics in Pakistani culture, this factor was not directly addressed in the study. Future research would benefit from exploring family

dynamics as a contextual factor, given its relevance to resilience in older adults. If data is available, future studies could also investigate potential mediators such as social support and spirituality to gain a more comprehensive understanding of these relationships.

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Exploring the Cultural Domain of Hausa Colour Terms

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Abstract

The study of colour terms has been an interesting phenomenon in linguistics. The power of colour terms to name and classify things, animals, and persons in a purely traditional way cannot be overemphasized across cultures. Of course, there are universal tendencies in the nature of colour naming across languages, but such universality does not apply to the socio-cultural aspect of all societies. This was supported by Casson (1994, 1997), Downman 92003), Bature (2005), Danladi (2010), and Aujara (2021), who believed that the size of colour vocabulary is certainly a measure of its cultural complexity; the smaller the vocabulary, the simpler the society. Hence, this paper examines the socio-cultural domain of colour terms in Hausa societies. Hausa is a member of the Afro-Asiatic family and is estimated to have approximately 1 billion L1 users, according to Ethnologue.com. Purposeful Random Sampling and survey methods were used, and 160 research subjects were selected from the speakers of the Hausa language in Sokoto state to source data for the study. The findings, from 154 respondents, reveal that colour is very significant to Hausa culture as it cuts across every aspect of socio-cultural, economic, political, and religious angles of a typical Hausa social group. It names and classifies traditional cloths and domestic animals on one hand, and describes/classifies people or races on the other. The paper also reveals that colour terms are used in rituals and traditional epithets of Hausa society. Hence, it concludes that colour is an indispensable tool for expressing deep thought, ideas, and powerful emotions in a purely traditional Hausa way.

1. INTRODUCTION

There are several languages spoken across the world, each with its own distinct system of colour naming and perception. So, basically, colour terms among world speech communities vary accordingly. This could be as a result of the cultural and/or linguistic history of each community. For example, in Welsh, 'glas' represents 'green', 'grey', 'blue', and 'silver', while 'ilyyd' represents the 'brown' and 'grey' of English. Hungarian, on the other hand, has two words for 'red': 'piros' and 'viros'. Navajo has a single word for 'blue' and 'green', which is 'grue'. These are colour terms whose distinction could be viewed not only in terms of their referents (meanings) but also their socio-cultural status and application (Abdulsalam, 2014). This paper, therefore, examines the cultural

attachment and relevance of colours and the various shades of meaning they convey in the Hausa language. In doing so, we first look at the Hausa people and their language, several divergent views of scholars on Hausa colour systems, and lastly, provide an overview of the long-standing socio-cultural relationship the various colours have in a typical Hausa cultural society.

1.1   Hausa People and their Language

The Hausa people speak the Hausa language and are commonly found in great numbers throughout Nigeria, particularly in the Northwest. Others are those who occupied Kwantagora, Jos, and Ilorin in small numbers. In fact, the Hausa people are also found in Asia, the Middle East, some parts of Europe, and Central and West Africa, as the case may be. According to Ethnologue.com, Hausa is a member of the Afro-Asiatic family and is used by about 1 billion L1 speakers. The Hausa people hardly abandon their culture and tradition wherever they find themselves. The Hausa people are excellent farmers, traders, and are very popular in rearing livestock such as sheep, goats, and fowls (Ahmad and Daura, 2010; Danladi, 2010). Balarabe (2016), on the other hand, observes that the Hausa people develop a quality rare in true Hausa natives, a power of command and administrative capacity. They have a very unique, rich, and beautiful culture. However, as a result of the spread of Islam in the territory, the culture has gradually been subsumed in the religion. The dialects of Hausa are classified according to geographical boundaries, and these include: Sakkwatanci, spoken in Sokoto; Zamfaranci in Zamfara; Kabanci in Kebbi; Kananci in Kano; Dauranci in Daura; Zazzaganci in Zazzau; and Gudaranci as well.

1.2 Colour Studies across Languages

Theories about colour have been in existence since the time of Socrates in the fifth century B.C. But it came to the limelight when Aristotle's notion of seven basic colours – with primary hues, related to the four elements – held control through the Renaissance. However, the notable work that influences colour studies in language as well as culture is the famous work of Berlin and Kay (1969), which revealed how colour terms are actually used by native speakers. Ronald (1957) also explored the mythological meanings of colour terms in his classical work, claiming that colours have symbolic meanings that extend beyond their literal descriptions of objects. For example, he wrote about the cultural significance of "white" in French society, arguing that it was associated with purity, innocence, and goodness, and that these meanings are deeply rooted in the people's culture and beliefs.

The study of Berlin and Kay (1969) was a pioneering theory of colour terms that studies where they surveyed one hundred and ten (110) languages using arrays of Munsell Colour Chips (a broad-scale inventory of colour perceived by the eyes that exist in the natural world) and report that the similarities and differences among languages in respect of the way in which they divide up colour spectrum are not as arbitrary as they had once been thought to be. They further emphasize the importance of the focal meaning of a term, rather than its peripheral meaning.

Berlin and Kay (1969) further propose that the basic colour terms in a culture, such as black, brown, or red, are predictable by the number of colour terms it has. According to them, all cultures have terms for black and dark, as well as white and bright. If a culture has three colour terms, the third is red. If it has four, it has others in yellow or green. Thus, they conclude that all languages appear to have between 2 and 11 basic colour terms. Lucy (1997) observes that the Berlin and Kay hypothesis aroused some controversy. First, there is the universal and non-universal substructure in the vocabulary of colour, and second, there is the saliency of some colour-foci and their universality. Downman (2003), while supporting Berlin & Kay's theory, remarks that "the size of colour vocabulary is certainly a measure of cultural complexity, the smaller the colour vocabulary, the simpler the society." On the same vein, Abdulsalam (2009) reports that the smaller the number of colour terms in a society, the older and more sophisticated its culture. This is because the richness of any language in terms of vocabulary depends on the nature of its cultural norms and values. These striking differences between colour terms of various languages prompted many researchers to conclude that each language has a unique system in a totally arbitrary way.

At this juncture, Casson (1994, 1997), on the evolution of Elaborate Colour Terms (ECT) in English, convincingly demonstrates that the language changed from a language that focused on lightness aspects to a hue-focused language, especially in the Middle English period. He concludes that culture members, responding to increases in societal complexity and diversity, restructure their systems of colour categorization by differentiating new concepts and innovating new vocabulary. The colour shift from brightness to hue in the evolution of English Basic Colour Terms can be seen as a response to an increasingly complex colour world in the Middle English period (1150-1500). The development of secondary colour terms, beginning in the late medieval period (1350-1500) can also be attributed to this increasingly diverse array of culturally significant colours. The response of culture members to these changes was, according to Casson, cognitive refocusing.

However, Valera, Thompson, and Rosch (1991) have earlier observed that colour categorization in its entirety depends upon a tangled hierarchy of perceptual and cognitive processes, some species-specific and others culture-specific, which Casson (1994, 1997) did not align to. Colour categories, therefore, are not to be found in some pre-given world that is independent of our perceptual and cognitive capacities. For example, the categories red, green, yellow, blue, purple, orange, as well as light/warm, dark/cool, yellow-with-green, etc., are experiential, consensual, and embodied: they depend on our biological and cultural history of structural coupling. Casson (1994, 1997)

Colour terms in Hausa societies are capable of giving semantic interpretation and a wide range of usages across socio-economic, religious, and cultural aspects. It is an indivisible tool that preserves the historical diffusion of societal norms and values for a very long time, transmitting them from one generation to another within a solidified entity of the Hausa community. Studies of Colour terms in West African languages, such as Hausa, have been carried out by various scholars, including Zarru (1978), Bature (2005), Danladi (2012), and Aujara (2021).

Of course, millions of colours exist in the world, but no language is able to give a name to all of them. Danladi (2012) reaffirms this claim when he observed that colour naming is tied to how complex the societal cultural norms and values are. The more sophisticated the relationship between the culture and the colours, the more viable it is for those different colours to be named. He therefore concludes that a society gives names to colours that are captured only within the spatial limits of its culture.

Zarru (1978), on the other hand, conducted a study on Hausa colour terms and revealed that colours are rarely used to visualize or romanticize sceneries, imaginations, or objects, purely on aesthetic and sentimental grounds. So, he concluded that the domain of most frequent colour application seems to revolve around the classification of cultural items of the most intimate historical relationship with the Hausa society. In particular, Zarru orders Hausa colour terms according to their importance as reported by Bature (2005) in the following: jáa, bá}ìi, fáríi, shúu]í and kóorèe = red, black, white, blue and green bá}ì í

It should be noted that Zarru's classification and ordering of the above colour terms is judged purely on the basis of the frequency of verbal usage he noted among his informants.

Bature (2005) thus argued that the universal hierarchy of colour terms proposed by Berlin and Kay (1969) is violated in Hausa, and also Zarru's order of Hausa colour terms for ranking 'red' higher than 'black' and 'white' is not in conformity with the

Hausa basic colour hierarchy. He therefore proposed a revised version that accommodates Hausa and other similar languages as below:

- black & white < red < green, yellow & blue < brown < purple, pink orange & grey

Bature (2005) further revealed that light green (algashi), yellow (raawayaa), and scarlet (jaawa) are not included in the Hausa basic colour terms simply because the meaning of light green, for example, is included in the meaning of green, while for yellow, there is an entity by that name (i.e., a shrub powder used for dying, rawaya and minjiryaa), and lastly scarlet is derived from red colour. Based on these arguments, he concludes that a basic colour in Hausa must conform to the following criteria:

i.   They should be terms used with a single (monolexemic) lexical item or morpheme (i.e., excluding yellow 'ruwan dorawa -water of rawaya' or maakubaa),

ii.   They need to be in common use (e.g., excluding deep yellow 'zabiibi' or bright yellow 'zarniihii'), applied to many objects (e.g., excluding Cambridge blue dye 'usually for leather'),

iii.   They must be salient, that is, universally shared and referentially stable across informants/speakers,

iv.   They must not be contained within another colour (e.g., excluding scarlet 'jaawaa' or light green 'algashii').

v.   And finally, they must refer to an abstract name of colour and not denote any entity in the language (e.g., chrome yellow 'raawayaa' is excluded)

However, both Zarru (1978) and Bature (2005) emphasized that colour forms the basis of naming and classifying such things as domestic animals, clothes, items in traditional occupations, and so on.

Just like Zarru (1978) and Bature (2005), Aujara (2021) also conducted a study on colour terms in the Hausa language, titled Exploring the Meaning of Colour Terms in the *Hausa Language*. He used Berlin and Kay's (1969) model of colour terms study as applied by both Zarru (1978) and Bature (2005) in their respective studies on colour terms. Aujara, however, went beyond the evolution of basic colour terms and their hierarchy to the various shades of meaning both basic and non-basic colour terms enjoy in the Hausa language, as well as how the Hausa culture influenced them to name and classify things, animals, and persons in purely traditional ways. Aujara (2021) did not indicate the methods he used in data collection and data analysis. Nevertheless, he followed the pattern of Zarru (1978) in data presentation and analysis. As part of his findings, Aujara revealed that the Hausa language has both basic and non-basic colour terms which have the same status as the English ones used by Berlin and Kay (1969). According to

the findings of the study, some colour terms in Hausa are adopted from English with little modifications, such as 'yalo' for 'yellow', 'ash' for the English 'ash', 'faful' for 'purple', and 'burawun' for 'brown'.

The study also revealed that there are modernized colour terms in Hausa whose names were influenced by civilization. Similarly, the study found that there are certain colour terms that name and classify persons, animals, and things in general. Aujara concluded that every society has its unique way of colour naming and assigning literal as well as contextual meaning to the colour terms.

2. METHODS

This paper employs a mixed design (qualitative and quantitative) to explore the cultural domain of colour terms in Hausa society. In doing this, questionnaire and interview techniques were used as instruments to collect data from 160 speakers of Hausa across Kofar Taramniya, Marinar Tsamiya, Bazza, Majemar Korino, Kanwuri, Atiku, and Ruggar woru areas of Sokoto state. Stratified Random Sampling was used in the selection of the informants. However, 144 questionnaire respondents were able to accurately complete and return the questionnaires. As such, only that number (144) was used in the analysis of the questionnaire respondents. Similarly, 10 people were interviewed on the place of colour terms in Hausa culture, and the analysis was done on both instruments.

3. THEORETICAL FRAMEWORK

The theoretical frameworks used in this paper are the cognitive linguistic theory and the Whorfian hypothesis. The hypothesis, according to Kay and Kempton (1988), claims that the language a person speaks (independent of the culture in which it resides) affects the way he thinks. In other words, the structure of the language determines the way in which speakers of that language view the world. The theory comprises two interrelated principles. The first is 'linguistic determinism', which claims that "our thinking is determined by language", and the second principle is the 'linguistic relativity', which is of the opinion that "people who speak different languages perceive and think about the world quite differently." In fact, the Whorfian hypothesis maintains that the world is differently experienced and conceived in different language communities. Thus, the arguments for this theory were summarized by Olaoye (2007) as reported in (Butari, 2010):

-   That language may influence or determine our thoughts since concepts are formed only through language.

- The more exposed and competent a speaker is, the better his reasoning faculty.
- That language allows us to categorize things, ideas, or objects accordingly.
- That language may not have a term for an item/object that does not exist in its culture.
- That language is a vehicle for cultural expression and transmission.
- that there are language universals and cross-cultural world experience which we share irrespective of the language we speak.
- that language does not rigidly determine thought.
- that speakers of the same language do not always share the same culture.
- that speakers of a particular language may have a very fair understanding of others, even though they may not have the same picture of the world.
- that colour and other grammatical categories are cross-linguistic phenomena.

Generally, the theory aligns with the earlier work of Ronald (1957), which revealed the underlying principle of mythological descriptions of colour terms, which symbolize diverse cultural beliefs.

4. RESULTS AND DISCUSSION

The study employs a mixed design to triangulate its findings specifically. The data for this paper were collected from the speakers of the Hausa language in Sokoto state, one of the Northwest states of Nigeria. The study reveals that the culture of Hausa societies is fascinating, encompassing virtually all aspects of human life. Islam, the religion with a large following in the area, significantly influenced the socio-cultural setting of Hausa society. Despite this, some Hausa speakers exhibit a perceptible attachment to traditional religion. This category of Hausa speakers has been closely associated with the socio-cultural patterns of their society. In terms of usages of Hausa colour terms, it is generally believed that some colours/colour terms are said to have been commonly used than the others because of their long historical relationship with the profession, religion, and culture of the society. Nevertheless, the findings of this study have confirmed the earlier claim of Zarru (1978) and Bature (2005) that the domain of most frequent colour application seems to revolve around the classification of cultural items of most intimate historical relationship with the Hausa society. Hence, colour naming, perception, and usage are enshrined in the socio-cultural patterns of Hausa society. Colours in the Hausa language form the basis of naming and classifying such things as domestic animals, clothes, and items in traditional occupations.

4.1 Naming and Classifying Domestic Animals

Hausa culture has a unique way of using colour terms to name and classify animals in a traditional sense. For example, 'kílì' and 'ákáwál' are meant for any white and black horse, respectively. Thus, in traditional Hausa society, kílì'takes the following combination:

Hausa	**glossary**
1. kílì kányà	an albino horse
2. kílì kwái	dark grey horse

While 'ákáwál', on the other hand, is a generic term for all black horses and can be said to include the following:

Hausa	**glossary**
3. Kíyárá	shiny black horse
4. Cíccíró	dull black horse
5. Dándá cíccíró	black horse with five white dots

Other colour names for horses include:

Hausa	**glossary**
6. Húrdè	dappled grey horse
7. Héjì	red horse
8. Bìkìlì	a beige horse
9. Gúnyá	a cream horse
10. Bíbí	a dark grey horse

The above colour scheme was evenly represented by a famous Hausa musician 'Naramba]a' in one of his songs 'Dokin iska Danhilinge'.
Similarly, the nomenclature of most domestic animals can be said to hinge mainly on the colour of their coats. This kind of nomenclature is found to be one of the richest colour schemes in Hausa culture. For example:

Hausa	**glossary**
11. Jákó	red goat
12. {yállà	dark red goat
13. Sáiwà	light brown goat with a few white dots
14. Gítsáwà	red goat with white irregular patches
15. Góhò	ash coloured donkey
16. Ján górà/ áurákì	brown coloured donkey
17. ákázá	creame coloured donkey
18. ásáwákì/ ásúwà	red donkey
19. Jaátàu	red dog
20. Dúnà	black dog

21.	Dúrwà	dark grey roan dog
22.	Bárè	red and white skewbald dog
23.	Gúdálè	pure Sokoto white bull
24.	Jánáarè	red cow
25.	Fólámà	an albino hen
26.	Tsáwárwárà	, a leopard coloured cat

Garba Maitandu has presented a marvelous classification of donkeys using the colour of their skin in one of his songs, 'Sarkin duddular Kaya'.

4.2   Colour Terms for Clothes

'Fárí' and 'Sá}ì' in Hausa culture refer to all white and coloured clothes respectively that are woven on the traditional African looms. For example:

	Hausa	**glossary**
27.	Lúrú	white material with some black strips
28.	Gwádò	white blanket
29.	Sákálà	, a heavier and more decorated white blanket

While for 'sa}i' coloured material, the following are used:

	Hausa	**glossary**
30.	Gámbárà	cloth with red-white, black-white alternate strips
31.	Tsámíyà	greenish-grey cloth with white strips
32.	Dúnhù	very black cloth

 The above classification and naming of domestic animals and clothing materials using colour have been a source of inspiration for accounting for the interface of the Hausa language and its culture.

4.3   Colour Terms for Describing or Classifying People or Race

Furthermore, in Hausa culture, the colour of the skin (body) of an individual is the primary means of classifying the human race or describing complexion. Thus, the human race among Hausa societies is divided into two, and these are:

	Hausa	**glossary**
33.	Bá}ár fátà (hwátà) (black skin)	black race
34.	jár/fárár (hwárár) fátà (hwátà) (red/white skin)	white race

In a typical Hausa society, colour is used to describe the complexion of an individual as follows:

Hausa	**glossary**
35. ákáwálì (m)	very dark complexion male person
36. ákáwálà (m)	very dark complexion female person
37. dán bá}i (m) (son of black)	dark complexion male person
38. yár bá}à (f) (daughter of black)	dark complexion female person
39. dán fárí (m) (son of white)	light complexion male person
40. yár fárà (f) (daughter of white)	light complexion female child
41. wánkàn dárzà(bath of darza)	very high complexion
42. wánkàn tárwádà (bath of a kind of fish) medium complexion	

Note: 'tárwádà' is a species of fish, and both 41 and 42 are generic terms used to name both genders.

4.4   Colour Terms in the Customs, Traditions and Rituals of Hausa Society

It is pertinent to mention here that colour is used symbolically in the domain of customs and rituals in Hausa society. For example, the 'bori' cult in Hausa culture is associated with bá}i (black), fárí/hwárí (white), and já (red) colours. Black and white colours are commonly used for rituals and other 'bori' activities, where they dress in black and white cloths to embark on profound meditation with the various evil spirits they relate with. For example:

43.   Black he-goat or bull for war or hunting rites.
44.   Black fowl for the spirit 'álfándà'.

Bá}í (black) also symbolizes either danger, terror, prowess, or treachery, weakness, and loss in traditional Hausa society. It could also be associated with grief and evil, as attested to by 90% of the respondents in the following:

Hausa	**glossary**
45. Bá}í dódón kárfè	The black, the terror of iron
46. Dúnhù báwàn sárà	The invulnerable to cuts and thrusts, the terror.
47. Dúná ~álérì	The darkish black, the terrible
48. Bá}ín ~érà/kúsù	A traitor or informant
49. Bá}ín kái	dull person
50. Ba}ar zúcíyà	hot temper
51. Ba}ar àníyà	bad intention
52. Bá}ín cíkì	sadness

However, bá}í (black), in traditional Hausa society, does not always connotate negativism as in the example 53 below:

53.   Kabiru bá}ín Dan Izala na.   Kabiru is a die heart member of Izala sect.

In this example, 'black' implies positivity, which qualifies the level of Kabiru's allegiance to the Izala sect.

Similarly,'fari/hwari' (white) is used in Hausa Idiomatic expressions to depict optimism and happiness on one hand and blemish or weakness on the other. Consider the following examples:

Hausa		**glossary**
54. fárín/hwárín cíkì	(white stomach)	happiness
55. fárín/hwárín gàmó	(white meeting)	good luck
56. fárín/hwárín bísò	(white arrival)	good news
57. fárín/hwárín jíní	(white blood)	popularity
58. Farar/hwarar káfá/sáu (white leg)		unlucky
59. fárín/hwárín ~érà/kúsù (white rat)		scandal
monger or traitor		
60. fárín/hwárín kómó	(white un-matured calabash)	weak person

Items Nos. 56 to 57 depict optimism and happiness, while 58 to 60 express blemish or weakness.

Já (red) symbolizes strength and bravery, and perseverance in Hausa society as presented below:

61.   Ján gwárzó   the brave warrior
62.   Ján zákì   the dountles man
63.   Ján námíjì   the real man
64.   Ján hàlì   great endurance
65.   Ján zúcíyà   bravery and perseverance
66.   Ján }ó}árì   excerted effort

However, in personal epithets of 'yan tauri' (dauntless persons who cannot be piers or cut by sharp iron) which is one of the cultural display of Hausa society, 'Já' (red) and 'Bá}í' (black) are the dominant colours that are use to depict danger, terror, prowess, treachery, weakness and loss especially in traditional Hausa epithet. The examples 67 – 70 were recorded at a Sallah festival where 'yan tauri' showcased their talents in 2019.

67.   Ni na **Ján gwarzo** (red warrior) na sarkin yai. Na zubda dubu sauran ko sunyi biyayya.

I am the great/brave warrior of Sarkin ya}i, I killed thousands, and others remained loyal. (gloss)

68.   Sai ni **Ján zaki** (red lion) mai sa maza sumali.

Except for me, the dauntless that makes men ponder. (gloss)

69.   Ni na **bá}í dódón }árh**è **(**the black, the evil of iron).

I am the black one, the terror of iron. (gloss).

70.   Sai ni **dúná ~álérì dúnhù** báwàn sárà (the black, the terrible and the daunting)

Except for me, the black terror, who is invulnerable to cut and thrust. (gloss)

4.5   Mythological Implications of Colour Terms in Hausa

In Hausa mythological beliefs, colours convey themes that differ from their original meanings. Of course, the meaning goes beyond the literal description of objects. For example, from items 45 to 70 above, it could be seen that three basic colour terms 'ba}i' (black), 'fari' or 'hwari' (white), and 'ja' (red) provided symbolic meanings which are different from the ordinary description of objects. In fact, it is crystal clear that the two colour terms 'ba}i' (black) and 'ja' (red) have negative connotations and are believed to have originated from the Hausa cultural beliefs. Hence, this confirmed Ronald's (1957) claim of colours having symbolic meanings that are deeply rooted in the people's culture and beliefs.

5   CONCLUSION

In conclusion, language and culture are two inseparable terms, while each depends on the other. Language is needed to explain culture, whereas culture enriches language. From the above discussion, it can be concluded that colour terms are virtually enshrined in the culture of Hausa society, as culture encompasses the whole way of life of people. In fact, colour is an indispensable tool for expressing fame, deep thought, and emotion in traditional Hausa society, as the foregoing discussion showed. Hence, all languages use colour terms in one form or another. However, the division of colour space may be highly dependent on a combination of environmental and cultural factors that are cognitively perceived and believed to have linguistic consequences on colour vocabularies and perception.

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Critical Discourse Analysis of the Manifestations of English Linguistic Challenges: The Case of the New Draft Language Policy in the South African Police Services

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Abstract

This study explores some of the reasons why the SAPS training programme is not producing police officers with adequate English competency that is relevant to the SAPS workplace. It is argued that the current SAPS Language Policy is not adequately developed. The study argues that language planning agencies in the SAPS have inadvertently or deliberately omitted to include clauses that articulate issues of language as they pertain to the training programme. Furthermore, we argue that Language policy is a crucial integral part of the SAPS training programme, which without it training will be seriously and dangerously affected. Data were elicited through an analysis of the specifically selected clauses contained in the SAPS draft Language Policy with specific reference to a selected SAPS training Academy in Gauteng province. Discriminant Function Analysis indicated 10 interrelated flaws within the SAPS Language policy. These flaws included the following: the silence of the policy on Assessment, Teaching and Learning in the academy. Principles from discourse analysis and sentiment analysis were used as a linchpin in developing the framework for this study. Data analysis showed the following. The draft Language police ignore many fronts for example on the language of teaching and learning, no liaison with the department of higher education and training (DHET), exclusion of Language Policy in Higher Education Policy (LPHE). The data can also help the language management unit of the SAPS.

1. INTRODUCTION

Educational practices in South Africa that privilege English throughout the educational journey of the learner disadvantage the majority who do not speak English as a home language. To try and counter that, tertiary institutions in South Africa like all over the world have crafted Language Policies (LPs) that appear to be attempts to redress this imbalance by pledging improved learning opportunities. In SAPS, the following were uttered by the Police spokesperson Mr Traut in an online newspaper called Politicsweb (2023): "The language policy of the SAPS stipulates that English is used for official documents and for preparing case dockets that are required for judicial purposes in a court of law,

the SAPS language policy by no means prevents a complainant from deposing a statement in his or her mother tongue, if a police officer is not conversant with the language of choice by the complainant, arrangements to accommodate the complainant will be made, and no person will be turned away on this basis".

Recent online newspaper headlines in papers such as Politicsweb reflect some of the current issues surrounding Language Policy in SAPS and the above statement is a testimony to that effect. Despite the above words, it can still be seen that these policies have not been implemented, perhaps indicating a lack of will to do so. Some of these policies are plagued with a plethora of ineffective clauses or flaws. These weaknesses allow for inaction. Thus, it is questionable whether post-secondary school institutions such as the SAPS Training Academies acting unilaterally rather than as part of a coordinated status, corpus and acquisition planning can achieve the transformation that is so much desired. It is observed that the development of language policy for transformation and social inclusion in South African higher education has significantly failed to achieve the ideal order of social redress… (DHET, 2017). SAPS Training Academies as part of the post-secondary education landscape are also not immune to the problem. The future role of language policy in the political development of South Africa will be critical and various studies have shown that there is a steady shift away from African languages towards English, and it has been argued that the language policy of the Constitution was never going to work (Bostock, 2018, p. 29).

Many studies on LP analysis have focused on tertiary institutions like universities (e.g. Drummond, 2016, Cele, 2021; Van Der Merwe, 2016). This paper looks at the SAPS language policy in order to explore and critique the weaknesses that have a bearing on the teaching of English language in the SAPS Training Academies. This is done because it is our firm belief that data from this study can contribute to clarity on whether the current draft SAPS LP (2016) is sufficient as is to affect the relevant teaching of English language in the SAPS Training Academies.

Furthermore, research at the nexus between language and discourses of state security is limited (Makoni, 2017, p. 49). In an attempt to achieve this aim, the study formulated two research objectives:

- To explore and identify the weaknesses in the current SAPS Language Policy with a specific reference to the teaching of the English language in the SAPS Training Academies
- To critique these weaknesses to help the SAPS Language Policy developers improve the Language Policy. Further, it aims to achieve the above-mentioned aims, the researchers formulated the following two research questions:

• Are there weaknesses in the current SAPS Language Policy that have the potential to hamper effective teaching of the English language in the SAPS training academies? If so, what are they, and what are their manifestations?

The researchers strongly believe that the data in this study will assist not only the SAPS Training Academies but also other SOEs at a similar level to the SAPS, such as the Metro Police departments in South Africa, in enhancing their training. This investigation will also help SAPS Language policy developers to re-examine the current LP with the aim of improving it.

2. LITERATURE REVIEW

2.1 Various Perspectives on Language Planning

The LPHE (Ministry of Education, 2002: 4-5) states:
"Language has been and continues to be a barrier to access and success in higher education…"

If the above statements are anything to go by, what about the situation in SAPS Training Academies, where not much attention is given, and this is due to the nature of secrecy or privacy about certain SAPS training programmes, and of course, this is understandable. Thus, if language planning at SAPS is not properly and carefully examined, challenges will always arise. As mentioned earlier, SAPS has not had a language policy for a very long time. Now, according to Wissink and Cloete (2000) literature on policy identifies three commonly known categories of policy, and they are:

• public policy
• non-governmental type policy
• and private sector policy

Wisssink and Cloete (ibid) write that policy can also be distinguished on a geographical level, for example, local policy, regional policy, national policy, and international policy. Thus, policy can include broad provisions that apply to a country or more specific provisions that apply to a particular institution, such as a training academy like the SAPS Training Academy.

Language planning can be approached in a variety of ways in order to influence the norms of language use in society (Drummond, 2016, p. 72). However, if the approach is not strictly looked into, flaws might creep in, which will impact the overall aim of the Language Policy (LP). The flaws in any LP might manifest into many challenges when it comes to delivery and implementation. However, the flaws can only be established or identified if an intensive scrutiny of the clauses contained in the policy is done. Thus, Cele (2021, p. 26) maintains that 'policy analysis is a form of policy evaluation that seeks to determine policy effectiveness to establish whether a policy should be upheld,

prolonged or reviewed'. Taylor et al. (1997) write that when evaluating policy, the purpose for the development of the policy and reflection on its espoused ideals have to be understood by asking various important key questions, such as:

- What is the policy responding to? Understanding the purpose of the policy helps evaluate whether it has achieved the desired effect.
- What effect does the policy have on the targeted problem?
- What are the suggested intentions behind the introduction of the legislation or policy?
- What are the unintended consequences of policy interventions?
- Who are the intended beneficiaries of the legislation or policy framework?
- What are the intended consequences for policy enactment?
- What effects does policy have on different groups?
- Is policy as a transformation tool feasible beyond its text and rhetoric?

The above questions are crucial when examining the draft LP of SAPS, given that SAPS has, for a long time, operated without a LP, instead relying on other measures.

Bianco (2009) asseverates that language policy consists of three dimensions, and they are:

       1. Language policy as discourse
       2. Language policy as text
       3. Language policy as practice.

Bianco (2009) explains that 'Language policy as discourse' refers to the contestations and debates that precede, and form part of, the language policy development process, while 'Language policy as text' represents the actual document. 'Language policy as practice' deals with how the policy is performed.

"Is it possible to differentiate between true and false robbery reports based exclusively on the wording of the report? Filing a false police report is a crime that has dire consequences on both the individual and the system; in fact, it may be charged as a misdemeanor or a felony" (Quijano-Sánchez, Liberatorea, Camacho-Collados and Camacho-Collados, 2017). The above statement articulates how a text can be understood based on the analysis of what it means. Thus, Critical Discourse Analysis will play a central role. This applies to even how sentiments in Language Policies are phrased.

Thus, in this study, the researchers focused primarily on 'Policy as text' simply because we wanted to analyse the content (using Discourse Analysis principles) as contained in the text, with the aim of exploring if there are weaknesses as expressed by some of the clauses. This was done, among other

things, to ensure that this policy is not being manipulated. According to Van Der Merwe (2016, p. 10), 'Language policies should not be taken at face value; it should be acknowledged that language policies have the capacity to perpetuate ideologies and to serve those in positions of power'.

3. CONCEPTUAL FRAMEWORK

A theoretical framework shapes the outcomes and findings of a research study. It is the roadmap a researcher uses in the expedition of finding patterns in answering research questions and finding solutions to research problems (McBurney, 2001). The study aimed to explore the caveats in the SAPS Language Policy which impede adequate English language teaching in the SAPS Training Academies; thus, theoretical orientations from Discourse Analysis (DA) theory were applied. Willig (2015, p. 146) posits that 'what people say tells us something about what they are doing with their words (disclaiming, excusing, justifying, persuading, pleading, etc) rather than about the cognitive structures these words represent'. According to Johnstone (2002, p. 04), discourse analysis deals with things such as why a particular text is the way it is, why it is not the other way, why use a particular word and not the other word, and lastly why the words are arranged in a particular order. In addition, Mavunga and Kaguda (2016, p. 176) agree with Johnstone when they assert that discourse analysis can be utilised to answer a variety of questions related to language questions such as:

1. What meaning is created by the arrangement of words in a particular way?
2. How are hearers likely to interpret what they hear?
3. How do speakers use their utterances to perform certain functions?
4. What is the influence of language on human relations?

Drawing from Critical Discourse Analysis (CDA), the researchers were thus able to zoom into various caveats and sections in the SAPS Language policy with the aim of gaining insights and in-depth understanding of how the interplay of these problematic caveats (i.e. in the Language Policy) might affect the teaching of English in the training academies.

4. RESEARCH METHODOLOGY

A research methodology encapsulates what is commonly referred to in research circles as 'research design'. A research design is an action plan for getting from here to there (Ary, Jacobs, & Sorenson, 2010). In other words, the crafting of the research design should be compatible with the aim of the research project. In accordance with the aim of this study (i.e., to investigate, identify, and critique the weaknesses that might be there in the SAPS Language policy with

specific reference to the teaching of the English Language in SAPS Training Academies), several research methodology aspects were embarked upon. This was a pure desk-based research project of textual analysis in nature.

4.1.   Sampling method and procedure

According to De Vos et al. (2005, p. 17), a convenience sample is the use of readily accessible persons in a study. Thus, in this study, the online SAPS Language policy was readily available and accessible to the researcher from the internet-connected computer in his office. This was the only primary source of data in this investigation. In other words, the textual analysis that happened in this investigation used principles of Critical Discourse Analysis principles as a guiding lens.

4.2.   Data Collection

The setting of the study reported here was in South Africa, specifically within one of the governmental departments, the Department of South African Police Services. South Africa is a country with a huge diversity in terms of population groups and languages. Most of the citizens speak English as a second language. The Census 2022 from Statistics South Africa has revealed that there were at least 18.5 million adults in South Africa who did not complete their secondary school education, or, simply put, they did not have a matric certificate. The researchers in this study are English lecturers at a university. The majority of SA police officers are trained in SA police training colleges, and trainers in those colleges are not English language experts (c.f Kekana, 2015).

A draft Language Policy (2016) of SAPS was utilised as a source of data harvesting. The reason for this was that SAPS had not had a Language Policy for quite a long time. This motivated the researchers to critically analyse the recent policy to establish the causes of poor or inadequate English competency in SAPS members.

4.3.   Method of Analysis

The researcher applied the principles advocated by Critical Discourse Analysis theorists to develop a conceptual framework to analyse the sample in this study. This is because the nub of this study was to critically analyse the discourse appearing in the SAPS's new draft language policy. The justification is that this (i.e., Critical Discourse Analysis Theory) theory is suitable and more relevant when it comes to analysing discourse in whatever form. This was motivated by the words of scholars such as Seliger and Shohamy (1989), who argued that a combination of methods yields a composite picture of a particular phenomenon. The role of a discourse analyst is to 'work with what has been said

or written, exploring patterns in and across the statements and identifying the social consequences of different discursive representations of reality'. The researchers found this statement to be vital in guiding the analysis of the data in this study, particularly when it comes to analysing the caveats contained in the SAPS Language Policy. This strategy was then enhanced by the application of orientations from Discourse Analysis theory, wherein the analysis was guided by questions such as the ones below:

1. What meaning is created by the arrangement of words in a particular way?
2. How are hearers likely to interpret what they hear?
3. How do speakers use their utterances to perform certain functions?

The researchers also draw from Inferential Analysis (c.f Kasanga,1996, p. 05) to understand and analyse some of the statements and caveats sampled in this study. This was done because at times a qualitative analysis seeks to find "all" instances… including subtle instances that require human interpretation of the text (c.f Vaismoradi, Turunen, Bondas, 2013, p. 13). It has to be understood that the data in this study were of a qualitative nature, and it was, among other things, analysed using principles from both interpretational analyses. This study was a desktop study because it was only on text (the Language Policy of SAPS was analysed).

4.4.   SAPS: A summary of the policy

SAPS's 2016 language policy document makes pronouncements regarding how the 11 SA official languages will be catered for in terms of use within itself as a department. Just like with most language policies in various State-owned Enterprises (SOE) the document indicates an equivocal belief in the use of indigenous languages as well as the recognition that language is a human right (See Drummond 2016). The documents predominantly focus on the purpose of the policy, which is stated as follows: 'This Policy is to establish an acceptable and equitable operational language dispensation that is economically feasible for the Service'

Furthermore, the policy document states that the policy is guided by functional multilingualism. In this policy document, under item 5 (d) functional multilingualism is defined as follows: 'functional multilingualism means the use of two or more official languages for specific tasks or target groups in those instances where the use of all 11 official languages or the use of a working language only will not ensure effective communication or compliance with constitutional obligations with regard to language.'

The linchpin or the legal framework on which this policy is guided and

developed is also clearly pronounced. Various policies that constituted the legal framework of this policy are stated as follows:

(a) Constitution of the Republic of South Africa, 1996;
(b) Pan South African Language Board Act, 1995 (Act No. 59 of 1995);
(c) Promotion of Access to Information Act, 2000 (Act No. 2 of 2000);
(d) Public Finance Management Act, 1999 (Act No. 1 of 1999);
(e) South African Police Service Act, 1995 (Act No. 68 of 1995):
(f) Statistics Act, 1999 (Act No. 6 of 1999); and
(g) Use of Official Languages Act, 2012 (Act No. 12 of 2012).

The danger here is that, in recognising the most crucial legislative documents in the country, the Language Policy in Higher Education (LPHE) is excluded, which is very important. As far as the implementation of this policy, the document sets out the following: 'Language Management. Corporate Communication at the Head Office is responsible for the implementation of this policy in collaboration with all Divisions in the Service. It is further stated that the policy will be implemented in four (4) phases, which are divided into five (5) financial years (i.e., from 2015 to 2020).

Lastly, Item 8 (i.e., the Description of the Policy) focuses on both internal and external communication guidelines. The document states that plain English is the main working language of the service, and it should be used in all official documents. The table below indicates an example of some of the actual caveats analysed of headings/titles of online newspapers analysed in this study.

5. ASSESSMENT OF THE SAPS LANGUAGE POLICY

This is a compressed account of the findings. It is important that, in order to understand the bias in a specific title/heading context, it is sometimes necessary. Thus, in some analysis of certain caveats or weaknesses contained in the SAPS Language policy, context will be provided briefly.

Firstly, many aspects of the policy, if implemented, could improve the teaching of the English language in SAPS training academies. Womack and Finley (1986, p. 14) write that 'When deciding on a language policy for the important issue of communication in the SAPS, it should be noted that communication literally fills the day of the typical police officer'. A key weakness in the document, however, pertains to communication as it happens in the SAPS Training Academies. In this policy, nothing is being pronounced in relation to how communication should be handled in the academies; it would seem that the developers of the policy were oblivious to the fact that communication in a Teaching and Learning environment is one of the crucial

aspects, as it also pertains to the issues of pedagogy. This weakness has the potential to impact the academic aspect of the training program, particularly in terms of English language competency. Furthermore, the importance of multilingual education is recognised by South Africa's Constitution (1996, s29 (2)), which states: 'Everyone has the right to receive education in the official language or languages of their choice in public educational institutions where that education is reasonably practicable'. The SAPS Language Policy is silent regarding the language of training in the SAPS training academies. It has to be remembered that SAPS training academies are 'public educational institutions. This is a serious flaw in the policy.

The other important weakness (i.e., finding) in the policy documents is found in the 'Purpose Section' of the document. Item (c) in the 'Purpose Section' of the Language Policy articulates as follows: 'Ensuring effective communication in and between the different substructures of the Service, as well as access to services, resources, programmes, information and knowledge for all employees, clients and members of the public.

Another finding from this investigation is that the programmes in this might also refer to the SAPS Training programme. We argue that because the Language Policy is silent on the issue of 'Language of Teaching and Learning' this makes the above-mentioned purpose difficult to achieve and this made even worse because the SAPS Training Academies do not have or utilise Teaching and Learning policy in their mist and this is a serious gap that needs to be interrogated. In almost all institutions of higher learning, the Teaching and Learning Policy is utilised to compensate for the gaps that the Language policy might have left. It should also not be forgotten that the Language Policy in a teaching or training institution, to some degree, guides the Teaching and Learning policy. The two have to articulate to each other.

Stevens (2005, p. 195) mentions the minimum standard model for police officer training developed by the International Association of Directors of Law Standards and Training. This model suggests that minimum curriculum requirements for basic training programs should identify a set of core competencies necessary for satisfactory performance of entry-level tasks. These competencies should include both knowledge and skills identified through job task analysis, and additional abilities in areas such as professional orientation, human relations, and ethical use of discretion that the commission deems consistent with the role of police and corrections officers in a free society. The above assertion relates to the issue of Assessment, which resides in the Assessment Policy. As it is known, SAPS Training Academies do not utilise or do not have Assessment Policies as guided by the Teaching and Learning Policy.

This is a serious flaw in the whole system, and it will have an impact on the realisation of the objectives set out in the Language policy. We argue that if the SAPS Language policy is not going to address or provide guidelines on matters of teaching and Learning in the SAPS Academies, then it should at least have clauses that articulate issues of Teaching and Learning.

In Item 5 under definitions aspect (h), it is stated that 'language management" means the section that provides language services, which include editing, translating, interpreting, transcribing, terminology development, and language planning. The argument we put forward is that the 'language management', which is responsible for language planning, is not fulfilling its duty. The evidence lies in the fact that the Language policy is silent on critical matters that relate to training. Furthermore, in Item 5 under the definitions aspect (I), it is stated that "language units" means units in departments and provinces that deal with specific language issues of that department or province arising from the National Language Policy and liaise with other departments on language matters.

The other finding from this investigation is the exclusion of DHET in the Language policy. The argument we put forward is that the SAPS 'Language Management' is not liaising with the Department of Higher Education and Training (DHET) in SA, which is more relevant and capable of advising on issues of pedagogy and language.

The other important finding, which is a weakness, is that the 'Legal Framework' upon which the SAPS Language Policy is based, to some degree is flawed because we argue that SAPS Training Academies are part of the Higher Education landscape in SA and therefore exclude Language in Higher Education Policy or LPHE, (2002) as it is known is a serious flaw. It is essential to note that all police trainees graduate from Safety and Security Sector Education and Training Authority (SASSETA)- accredited SAPS training academies. These police graduates obtain a Level Five National Qualifications Framework-aligned qualification (Montesh, 2007, p. 14). The SAPS Language Policy only pronounces that the following constitute the legal framework:

   (a) Constitution of the Republic of South Africa, 1996;
   (b) Pan South African Language Board Act, 1995 (Act No. 59 of 1995);
   (c) Promotion of Access to Information Act, 2000 (Act No. 2 of 2000);
   (d) Public Finance Management Act, 1999 (Act No. 1 of 1999);
   (e) South African Police Service Act, 1995 (Act No. 68 of 1995):
   (f) Statistics Act, 1999 (Act No. 6 of 1999); and
   (g) Use of Official Languages Act, 2012 (Act No. 12 of 2012).

Surprisingly, the SAPS Language police make pronouncements on issues of Braille. In section 8 (i.e., Policy Description) in item 3, it is stated as follows. The Service will cater to the needs of individuals with language disabilities or language barriers. Employees and clients of the Service who are blind and those with hearing impairment must be provided for by using sign language and braille.

The above-mentioned task is given to the 'Disability Management' of the Service. We argue that this is also a Teaching and Learning matter, which could be best handled in the Teaching and Learning policy as well as the Assessment policy (which SAPS Training Academies do not have). This finding has to be understood in the context that nothing is being said or pronounced about police recruits who are 'blind'. Thus, this means that SAPS promotes and acknowledges that the blind cannot be trained to be police officers. The issue of braille also relates to the issue of language of pedagogy in a training institution, and this should be taken care of. However, the current SAPS Language Policy is silent on the matter, and this is one of the weaknesses in this policy. It is indeed true that most LPs do not articulate their plans around empowering lecturers/teachers or trainers as far as teaching is concerned. This study also found the same challenge with the current SAPS Language Policy.

5.1 Discussion

After carefully examining the Draft SAPS Language policy, the following observations were made. The glaring grey area, as far as this draft SAPS Language policy is concerned, is its silence regarding Teaching and Learning in the SAPS Training Academies. In other words, the weakness in the draft SAPS LP is that it does not make references or even suggestions to Teaching and Learning policies, nor touch on the Language of Teaching and Learning in an academy.

Drummond (2016) maintains that Language planning can be approached in a variety of ways in order to influence the norms of language use in society. We argue that the approach SAPS took, leaving most of the work, including implementation, enforcement, monitoring, and evaluation, to 'Language Management,' is somewhat of a risk. Language Management is part of the SAPS as both a system and a department; therefore, we argue that one cannot be a referee and the player at the same time. SAPS Language Management cannot oversee and monitor this process; perhaps a different entity could have been selected to oversee the process. In fact, because SAPS Training Academies are part and parcel of the SA higher education landscape, PanSALB (as the Watchdog) and the Department of Higher Education and Training should have been approached.

According to Drummond (2016, p. 71), there is some evidence that the current educational system in South Africa is not operating equitably for all of its citizens. This is also clearly indicated by the current SAPS Language Policy in a section titled Policy Description (item 8), wherein the issue of 'People with language disabilities and barriers is pronounced. In this section, it is pronounced that 'the Service will provide for the needs of people with language disabilities or language barriers…'. Nothing is being said about police recruits who are 'blind'. This means that SAPS promotes and acknowledges that the blind cannot be trained to be police officers. The issue of braille also articulates the issue of language of pedagogy in a training institution, and this should be taken care of. However, the current SAPS Language Policy is silent on the matter. What this means is that the SAPS training programme is not 'operating equitably about all of its citizens' as Drummond (ibid) observed.

The 2002 Policy for Higher Education is a document intended to transform language use in universities (Drmmond, 2016, p. 72). However, we argue that this 'transformation in language use' is not exclusive to universities alone. This policy (LPHE, 2002) also applies to academies such as SAPS training academies because they form part of the Higher Education landscape of SA. Thus, for the SAPS Language Policy to exclude it as one of its underpinning frameworks is a serious flaw, and by implication, this exclusion indicates mistrust of the LPHE or simply put, the developers do not believe in the LPHE 2002.

The SA Constitution has been criticised for containing vague statements (See, Webb 1999; Koch & Burkett, 2005). Now it looks like this draft SAPS Language Policy also suffers from the same issue, and this is so because in Item 8 (Policy Description), statement number (a) under Communication and External Communication states the following: 'Plain English is the main working language of the Service and ít should be used in all official documents'.

We further argue that this statement is confusing and vague in the sense that workplace theories and institutional language principles do not agree with the so-called 'plain English' or general English as it is commonly known. SAPS, like any other workplace environment, has its own language which is taught and used (See Kekana and Mogoboya 2021). Thus, to state that 'Plain Language is the main working language of the Service when police officers were taught English that is specifically meant for the Police environment is very disturbing. It has to be remembered that the SAPS workplace environment is 'tilted towards a law environment'.

As it has been said in the findings, in this policy, nothing is being pronounced in relation to how communication should be handled in the academies. We see this as a serious predicament to the effective teaching and

learning of English at SAPS Training Academies because the SAPS Language policy provides no guidelines. Indeed, it would seem that the developers of the policy were oblivious to the fact that communication in a Teaching and Learning environment is one of the crucial aspects, as it also relates to the issues of pedagogy. This weakness has the potential to affect the academic aspect of the training programme, particularly in English language competency.

6. CONCLUSION

Language policies strongly influence public opinion and should be treated and developed with care. Single departments, such as SAPS, acting unilaterally, do not have the adequate power to effect the much-needed transformation in their Training Academies (as far as English language teaching is concerned), nor can they transform language practices in other sectors of education. This is an area in which only a broader, cross-sector approach emanating from a national language planning body could succeed (Drummond, 2016, p. 78). The researchers believe that this study, though small, can be used as a thrust in researching SAPS policy effectiveness as far as the Teaching of English in SAPS Academies is concerned. The study has indicated that this gargantuan English teaching challenge in the SAPS Training Academies is not insurmountable. Thus, this study, though a drop in the ocean, is hoped to trigger further research in this area.

6.1 RECOMMENDATIONS

- LPHE (2002) should form part of the framework as far as the SAPS Language policy is concerned
- SAPS training academies, like any other post-secondary school institutions, should be encouraged to formulate and develop their own Teaching and Learning and Assessment policies so that they can assist the SAPS Language policy
- There should be more interdisciplinary research on Language policy and planning, for example, the Language and Law disciplines work together.
- Department of Higher Education and Training (DHET), like all other relevant departments mentioned, should be consulted when such a policy is developed.
- The role of 'Watchdogs' should be left to the Language Management unit of SAPS alone, but also organisations such as PanSALB should be involved.
- The SAPS Language policy includes clauses that articulate issues of teaching and Learning in SAPS Training Academies
- Standing Order Generals (SO(G)) that were used before the SAPS LP should

be used as a basis for improving the SAPS LP

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