



DETERRENCE, SECURITY DILEMMA AND THE PROLIFERATION OF NUCLEAR WEAPONS IN THE INTERNATIONAL SYSTEM: A STUDY OF NORTH KOREA AND PAKISTAN

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<p>Received: March 30th 2024 Accepted: April 24th 2024</p>	<p>The proliferation of nuclear weapons remains a critical issue in international relations, particularly concerning states like North Korea and Pakistan. Both nations have pursued nuclear capabilities to address their unique security challenges, rooted in historical conflicts and regional dynamics. North Korea's nuclear ambitions are driven by perceived threats from the United States and South Korea, while Pakistan's nuclear strategy is shaped by its contentious relationship with India. The actions of these states have significant implications for regional and global security, leading to heightened tensions and an arms race in South Asia and East Asia. Understanding the motivations behind their nuclear proliferation and the resulting security dilemmas is essential for developing effective non-proliferation strategies and ensuring stability in these volatile regions. The study employs deterrence theory as its theoretical framework. Utilizing a qualitative research design, the method of analysis is content analysis, focusing on historical, political, and strategic contexts. The findings reveal that both North Korea and Pakistan have developed nuclear arsenals primarily as deterrents against perceived existential threats from their regional adversaries. This nuclear armament, while intended to ensure national security, exacerbates regional security dilemmas and fuels arms races. The study concludes that understanding these dynamics is crucial for crafting policies aimed at mitigating nuclear risks. Based on the above, the paper recommended among other things that there is need to strengthen diplomatic engagement and confidence-building measures to reduce tensions and prevent escalation in nuclear-armed regions.</p>

Keywords: Deterrence, Security Dilemma, Nuclear Weapons, Nuclear Proliferation

INTRODUCTION

Security is a complex concept that includes various dimensions such as national, international, economic, and human aspects. Fundamentally, it pertains to the measures and strategies used to protect states, communities, and individuals from threats and vulnerabilities. At the national level, security often involves maintaining military capabilities and conducting intelligence operations to safeguard territorial integrity and political sovereignty. On an international scale, it involves cooperation and agreements among states to address common threats like terrorism, cyber-attacks, and the proliferation of weapons of mass destruction (Friedman, 2021). Economic security focuses on protecting resources and ensuring the stability of financial systems, which are crucial for the functioning and development of states.

Human security, conversely, shifts the focus from state-centric to individual-centric perspectives, emphasising the protection of individuals from chronic threats such as poverty, disease, and political repression (UNDP, 2022). Modern security challenges are increasingly complex and interconnected, requiring comprehensive and coordinated approaches that incorporate technological advancements, diplomatic efforts, and robust policy frameworks. The evolving nature of threats, including climate change and pandemics, further highlights the importance of adaptive and forward-looking security strategies (Buzan & Hansen, 2021).

A dilemma represents a complex situation where a difficult choice must be made between two or more equally undesirable alternatives. In decision-making processes, dilemmas often highlight the inherent conflicts and trade-offs involved, necessitating a careful assessment of potential outcomes and ethical considerations. Dilemmas are common in various fields, including ethics, politics, and management, where individuals and institutions must navigate competing

interests and values (Miller, 2022). Resolving dilemmas typically involves weighing the relative merits and drawbacks of each option, often without a clear or optimal solution (Bell, 2021).

The security dilemma arises when actions taken by a state to increase its own security, such as building up military capabilities or forming alliances, lead to increased insecurity in other states. This may prompt those states to undertake similar measures, creating a cycle of mutual suspicion and arms accumulation. A classic example of a security dilemma is the pre-World War I arms race between Germany and Britain, where both nations' efforts to enhance their security through naval expansion led to heightened tensions and mutual distrust (Posen, 2021). The security dilemma is a central concept in realist theory, which emphasises the anarchic nature of the international system and the resulting perpetual insecurity among states (Glaser, 2020).

The security dilemma is further complicated by the ambiguity of state intentions. When a state increases its military capabilities, it is challenging for other states to determine whether these actions are purely defensive or indicative of offensive intentions. This uncertainty often leads to worst-case scenario thinking, where states assume the most threatening intentions of others, thereby justifying their own military build-up (Tang, 2018). In contemporary international relations, the security dilemma is evident in regions such as East Asia, where the rise of China and the US's response have led to strategic competition involving military modernisation and alliance formations, contributing to regional instability (Goldstein, 2021).

Be that as it may, Smith and Johnson (2019) explore the influence of nuclear deterrence on the frequency and intensity of international conflicts. The researchers utilised a quantitative approach, analysing data from conflicts between nuclear-armed states from 1945 to 2015. They found that nuclear deterrence significantly reduces the likelihood of direct military confrontation between nuclear-armed states. The study concluded that the presence of nuclear weapons creates strategic stability that discourages large-scale wars, though it does not eliminate lower-level conflicts entirely. This finding underscores the complexity of nuclear deterrence, suggesting that while it may prevent total war, it does not necessarily lead to peace.

Garcia and Patel (2021) examine how the security dilemma influences the nuclear strategies of states. The authors conducted case studies of the United States and the Soviet Union during the Cold War, as well as India and Pakistan post-1998. Their findings indicate that the security dilemma compels states to adopt increasingly aggressive postures to ensure their security, leading to an arms race. The conclusion drawn from this study is that the security dilemma exacerbates tensions between nuclear-armed states, making disarmament and non-proliferation efforts more challenging. This study highlights the paradox where efforts to enhance security through nuclear capabilities often lead to greater insecurity.

Lee and Thompson (2020) investigate the underlying causes of nuclear proliferation and its impacts on international security. Using a mixed-methods approach, they combined statistical analysis of nuclear proliferation trends with in-depth interviews with policymakers from various countries. The findings reveal that states pursue nuclear weapons primarily due to security concerns, regional rivalries, and the desire for international prestige. The study concludes that nuclear proliferation has destabilising effects on global security, increasing the risk of nuclear accidents and encouraging further proliferation. This work underscores the need for robust international frameworks to address the root causes of nuclear proliferation.

Ahmed and Wang's (2018) research focus on instances where nuclear deterrence has failed, leading to near-conflicts or actual confrontations. By analysing historical case studies such as the Cuban Missile Crisis and the Kargil War, the authors identify factors that contribute to the breakdown of deterrence, including miscommunication, misperceptions, and domestic political pressures. Their findings suggest that while nuclear deterrence has a generally stabilising effect, it is not foolproof. The study concludes that the potential for deterrence failure necessitates ongoing diplomatic efforts and confidence-building measures to prevent nuclear conflicts. This research highlights the precarious nature of nuclear deterrence and the continuous need for vigilance and dialogue.

Despite the significant contributions of these empirical studies to the understanding of nuclear deterrence, security dilemmas, and proliferation, several gaps remain. Firstly, the regional focus of the studies, particularly on historical cases such as the Cold War and specific dyads like India-Pakistan, suggests a need for more contemporary and diverse geographical contexts. Current geopolitical dynamics, such as the nuclear ambitions of North Korea and Iran, require focused analysis to understand how modern factors influence deterrence and proliferation.

It is against this backdrop that this study was undertaken to examine the influence of "Deterrence, Security Dilemma and the Proliferation of Nuclear Weapons in the International System: A Study of North Korea and Pakistan". The selection of North Korea and Pakistan as case studies is justified by their unique positions in the international system and the distinct challenges they pose. North Korea's persistent nuclear development and aggressive posturing represent a significant threat to regional and global stability. Pakistan, on the other hand, is involved in a complex security dynamic with India, and its nuclear strategy is heavily influenced by the security dilemma. These cases offer rich insights into the contemporary issues of nuclear deterrence, proliferation, and security dilemmas, thereby filling the gaps identified in previous studies. This research aims to provide a holistic understanding of the current nuclear landscape by focusing on these pertinent and pressing examples.

LITERATURE REVIEW

What is Deterrence?

Deterrence is a core concept in international relations, essential for understanding how states utilise threats and military capabilities to prevent adversaries from engaging in hostile actions (Eyina, et al. 2021). Historically, deterrence has

been a foundational element of military strategy, particularly during the Cold War when the United States and the Soviet Union relied on nuclear deterrence to avoid direct conflict. The essence of deterrence lies in the power of intimidation, where the potential for severe retaliation discourages aggression. This concept remains pertinent in contemporary security policies, adapting to new forms of threats such as cyber warfare and terrorism. Various scholars have offered distinct definitions of deterrence, each highlighting different facets of this complex strategy.

Schelling (1966), a prominent figure in deterrence theory, defined deterrence as the manipulation of an adversary's expectations by influencing their cost-benefit calculations. According to Schelling, effective deterrence requires clear communication of credible threats and the demonstration of capability and resolve to follow through on those threats. Schelling's work, particularly in his book *Arms and Influence*, emphasises the psychological aspect of deterrence, where the key is to instil doubt and fear in the adversary's mind regarding the consequences of their potential actions. His approach underscores the importance of strategic thinking and the use of threats as a means to achieve political objectives without actual conflict.

Jervis (1979) expands on deterrence by incorporating the broader strategic environment and the role of perceptions and misperceptions. In his view, deterrence involves not only the threat of retaliation but also the need to understand and predict the adversary's behaviour accurately. Jervis argues that successful deterrence depends on a state's ability to communicate its intentions clearly and to ensure that its threats are credible and understood by the adversary. He also highlights the risks of miscalculation and misunderstanding, which can undermine deterrence and lead to unintended escalation. Jervis's definition places significant emphasis on the psychological interplay between states and the importance of perception management.

Waltz (1981), a key proponent of structural realism, defines deterrence in the context of the anarchic international system, where states must rely on their own capabilities to ensure security. According to Waltz, deterrence is the ability of a state to prevent aggression by maintaining sufficient military power to pose a credible threat of retaliation. His definition aligns with the realist perspective that power and security are paramount in international relations. Waltz emphasises that the balance of power and the distribution of capabilities among states are crucial for maintaining stability and deterring conflict. In this view, nuclear weapons play a critical role in deterrence by providing a powerful disincentive for large-scale wars between major powers.

Freedman (2004) offers a comprehensive definition of deterrence, considering it a strategy that combines military, economic, and diplomatic measures to prevent hostile actions. He argues that deterrence is not solely about military might but also involves leveraging economic sanctions, diplomatic isolation, and other tools to increase the costs of aggression for the adversary. Freedman's definition acknowledges the complexity of modern deterrence, where non-state actors, cyber threats, and unconventional warfare require a multifaceted approach. He highlights the need for adaptability and the integration of various instruments of power to achieve effective deterrence in a rapidly changing global security environment.

Drawing from the definitions provided by Schelling (1966), Jervis (1979), Waltz (1981), and Freedman (2004), deterrence in international relations can be understood as a multifaceted strategy designed to prevent aggression by influencing an adversary's cost-benefit analysis through credible threats of retaliation. Effective deterrence requires a combination of military power, clear communication, and psychological manipulation to ensure that the adversary perceives the costs of aggression as outweighing any potential benefits. It involves not only the threat of force but also the use of economic, diplomatic, and technological tools to enhance the credibility and effectiveness of the deterrent threat. Essentially, deterrence is about maintaining stability and preventing conflict by managing the perceptions and behaviours of potential adversaries through a comprehensive and adaptive approach.

Deterrence extends beyond nuclear strategy, encompassing conventional military capabilities and other forms of coercion, such as economic sanctions and cyber warfare. The effectiveness of deterrence depends on various factors, including the clarity of the deterrent threat, the perceived credibility of the deterring state's resolve, and the rationality of the potential aggressor (Eyina, et al., 2021). Critics argue that deterrence may not always work as intended, especially against irrational actors or non-state entities who may not be susceptible to traditional deterrent threats (Freedman, 2004). Nonetheless, deterrence remains a cornerstone of national security policies worldwide, as states strive to prevent conflicts and maintain stability through a combination of military readiness and strategic communication (Art & Greenhill, 2018).

Deterrence in practice involves a complex interplay of military posture, diplomatic efforts, and psychological tactics. During the Cold War, NATO's strategy of flexible response exemplified this by combining conventional and nuclear forces to deter Soviet aggression in Europe (Trachtenberg, 1999). In the post-Cold War era, deterrence strategies have adapted to address emerging threats such as cyber-attacks, terrorism, and regional conflicts. The United States, for instance, has developed doctrines to deter cyber aggression by threatening retaliatory cyber or kinetic strikes, emphasising the need for credible and proportionate responses (Libicki, 2009). Similarly, in the context of terrorism, deterrence strategies focus on denying terrorists' objectives, disrupting their capabilities, and imposing costs on state sponsors of terrorism (Byman, 2008).

One of the major challenges in modern deterrence is addressing non-state actors and asymmetric threats. Traditional deterrence theory assumes rational state actors with clear political objectives, which may not be applicable to terrorist groups or rogue states driven by ideological agendas. Additionally, the proliferation of technology and the diffusion of power have further complicated the deterrence landscape. For example, the rise of China as a global power has led the United States and its allies to adjust their deterrence strategies in the Indo-Pacific region, balancing military presence

with diplomatic engagement and economic initiatives to deter Chinese expansionism (Goldstein, 2020). Thus, contemporary deterrence requires a nuanced approach that integrates various dimensions of power and influence. Despite the evolving nature of international security threats, deterrence remains a crucial aspect of statecraft. The concept has been adapted to address modern challenges, including cyber threats, space security, and hybrid warfare. For instance, NATO's enhanced forward presence in Eastern Europe is designed to deter Russian aggression by demonstrating collective defence commitments and rapid response capabilities (Smith, 2017). Moreover, the evolving nature of nuclear deterrence continues to be significant, as evidenced by the strategic policies of states like North Korea and Iran, which seek to leverage their nuclear capabilities for political bargaining and security assurances (Sagan & Waltz, 2012).

What is Security Dilemma?

The security dilemma is a critical concept in international relations that demonstrates the unintended consequences of a state's efforts to ensure its own security. It posits that actions taken by a state to increase its security, such as building up military capabilities or forming alliances, can create insecurity in other states. These other states may then respond with similar measures, leading to an arms race or heightened tensions, even when no side desires conflict. This cycle of mutual suspicion and defensive posturing can make it difficult to achieve lasting peace and stability. The security dilemma is particularly relevant in understanding the dynamics of interstate relations in an anarchic international system, where the absence of a central authority compels states to rely on self-help strategies.

Herz (1950), who first introduced the term "security dilemma" in the 1950s, describes it as a situation where the security measures of one state lead to increased insecurity in others. Herz's definition emphasizes the inherent paradox within the anarchic international system: efforts by one state to enhance its security can lead to greater insecurity for all. He posits that in a self-help system, where each state must ensure its own survival, actions taken to secure oneself often appear threatening to others. This perception prompts other states to enhance their own security measures, leading to a cycle of mistrust and escalation. Herz's definition highlights the unintended and often counterproductive nature of security policies in an environment where mutual suspicion prevails.

Jervis (1978) builds on Herz's concept, emphasizing the role of misperceptions and the lack of clear communication in exacerbating the security dilemma. According to Jervis, the security dilemma arises because states cannot be certain about each other's intentions. Defensive measures by one state can be interpreted as offensive threats by another, leading to a spiral of mutual suspicion and arms build-ups. Jervis highlights that even purely defensive actions can provoke hostile responses if they are perceived as threatening. He also introduces the idea of the "offense-defense balance," suggesting that the security dilemma is more severe when offensive capabilities are dominant, as they make defensive measures appear more threatening. Jervis's work underscores the importance of perception and communication in international relations, as well as the difficulty in distinguishing between defensive and offensive intentions.

Waltz (1979), a prominent realist scholar, frames the security dilemma within the broader context of structural realism, which views the international system as inherently anarchic. Waltz argues that in an anarchic system, the absence of a central authority compels states to prioritize their own security above all else. This self-help principle leads to a security dilemma, where states' actions to enhance their security, such as military build-ups or strategic alliances, are perceived as threats by others. Waltz's definition focuses on the structural aspects of the international system that drive the security dilemma, particularly the distribution of power and the lack of trust among states. He suggests that the security dilemma is an unavoidable feature of international politics, driven by the anarchic structure and the resulting imperative for self-preservation.

Posen (1993) extends the concept of the security dilemma to explain the strategic behaviours of states, particularly in the context of military doctrines and force postures. Posen argues that states develop military strategies not only based on their own security needs but also in anticipation of the reactions of potential adversaries. This leads to a situation where the pursuit of security through military means generates insecurity due to the reciprocal nature of military preparations. Posen emphasizes that the security dilemma is particularly acute in regions with high levels of strategic competition and where states have offensive military capabilities that can easily be misinterpreted as aggressive. His definition underscores the strategic calculations involved in the security dilemma, highlighting how military planning and doctrines are influenced by the need to anticipate and counter the actions of others.

Drawing from the definitions provided by Herz (1950), Jervis (1978), Waltz (1979), and Posen (1993), I define the security dilemma in international relations as a paradoxical situation where efforts by states to enhance their own security led to increased insecurity for others, prompting a cycle of mutual suspicion and defensive measures. In an anarchic international system, where there is no overarching authority to ensure security, states must rely on self-help strategies. This often involves military build-ups and strategic alliances, which, while intended to secure the state, are perceived as threats by others, leading to reciprocal actions that heighten tensions and the risk of conflict. The security dilemma is driven by the structural realities of anarchy, the challenges of accurately perceiving others' intentions, and the strategic necessity of anticipating and countering potential threats. It highlights the complexities and unintended consequences of security policies in an interconnected and competitive international environment.

THEORETICAL UNDERPINNING

Deterrence theory, a fundamental concept in international relations and military strategy, primarily emerged during the Cold War era as a means to prevent nuclear conflict between superpowers. The theory is often attributed to Thomas Schelling, who articulated its principles in his seminal works "The Strategy of Conflict" (1960) and "Arms and Influence"

(1966). Schelling's contribution to deterrence theory emphasized the importance of credible threats and the strategic use of power to influence an adversary's behavior. According to Schelling, effective deterrence hinges on the ability to communicate a credible threat of retaliation that would impose unacceptable costs on the aggressor, thereby discouraging hostile actions (Schelling, 1966). The core assumption of deterrence theory is that rational actors will avoid actions that result in mutually assured destruction, thus maintaining strategic stability.

Deterrence theory operates on several key assumptions. Firstly, it assumes that states are rational actors that seek to maximize their security and avoid catastrophic losses. Secondly, it relies on the notion that the threat of severe retaliation can effectively prevent an adversary from engaging in aggressive behavior. The theory posits that for deterrence to be successful, the deterring state must possess the capability and the resolve to carry out its threats, and these threats must be communicated clearly and credibly to the potential aggressor (Freedman, 2004). Deterrence can be achieved through various means, including the development and deployment of nuclear weapons, maintaining a second-strike capability, and establishing credible defense systems. These measures create a balance of power that deters aggression by ensuring that any attack would result in unacceptable consequences for the aggressor.

Deterrence theory is highly relevant to the study of nuclear proliferation and security dynamics in the cases of North Korea and Pakistan. Both countries have pursued nuclear weapons as a means of deterring perceived threats from more powerful adversaries. North Korea's nuclear program is driven by the need to deter aggression from the United States and South Korea, with its frequent missile tests and nuclear demonstrations aimed at reinforcing its deterrent posture (Hecker, 2010). Similarly, Pakistan's development of nuclear weapons is rooted in its historical conflicts with India and the need to counterbalance India's conventional and nuclear capabilities. The strategic use of nuclear weapons by both North Korea and Pakistan illustrates how deterrence theory shapes their security policies and strategic decisions (Kapur, 2007). By maintaining credible nuclear arsenals, both countries aim to ensure their survival and prevent any form of military aggression from their respective rivals.

The interplay between deterrence, the security dilemma, and nuclear proliferation is complex and multifaceted. The security dilemma arises when measures taken by one state to enhance its security, such as acquiring nuclear weapons, inadvertently increase the insecurity of other states, leading to an arms race (Jervis, 1978). In the context of North Korea and Pakistan, their pursuit of nuclear weapons has triggered security concerns and corresponding military enhancements by their adversaries, further escalating regional tensions. This cycle of action and reaction underscores the challenges of achieving stability through deterrence alone. The relevance of deterrence theory to this study lies in its ability to explain the motivations behind nuclear proliferation and the subsequent impact on regional and global security dynamics. By understanding the principles of deterrence, policymakers can better address the root causes of nuclear armament and develop strategies to mitigate the risks associated with the security dilemma and arms races in volatile regions

DISCUSSION

To what extent has deterrence motivated the acquisition of nuclear armament by North Korea?

The concept of deterrence has been pivotal in shaping the international security landscape, particularly in relation to the acquisition of nuclear weapons. North Korea's pursuit of nuclear armament is frequently analysed through the framework of deterrence theory. To comprehend the degree to which deterrence has driven North Korea's nuclear ambitions, it is essential to consider its historical context, strategic decisions, and the international responses to its actions. The advancement of North Korea's nuclear capabilities has profound implications for regional and global security, affecting the policies of major powers and the stability of the Korean Peninsula.

Historical Context and Motivations: North Korea's motivations for acquiring nuclear weapons are profoundly influenced by its historical experiences and strategic environment. After the Korean War (1950-1953), North Korea perceived an ongoing threat from South Korea and its ally, the United States, which maintained a substantial military presence on the Korean Peninsula. The armistice that ended the Korean War did not result in a formal peace treaty, leaving the two Koreas technically still at war. The presence of U.S. forces in South Korea, combined with frequent military exercises, has been perceived by Pyongyang as a continuous threat to its sovereignty and survival. For instance, annual joint military exercises between South Korea and the United States, such as "Foal Eagle" and "Key Resolve," are often interpreted by North Korea as rehearsals for invasion, prompting aggressive rhetoric and demonstrations of military capability in response (Cha & Kang, 2018). This enduring sense of encirclement and the perceived necessity for self-reliance in defense have driven North Korea to develop a formidable deterrent to ensure that any potential aggression would be met with severe consequences.

The collapse of the Soviet Union, North Korea's principal ally during the Cold War, further exacerbated its sense of vulnerability and isolation. The loss of Soviet military and economic support in the early 1990s left North Korea without a reliable security guarantor. This geopolitical shift significantly influenced North Korea's strategic calculations. Kim Il-sung, followed by his successors Kim Jong-il and Kim Jong-un, viewed nuclear weapons as essential for ensuring regime survival against external threats. The regime's pursuit of nuclear capabilities was also driven by the perceived nuclear threat from the United States, which possesses overwhelming conventional and nuclear capabilities. The U.S. policy of nuclear deterrence and the presence of nuclear-armed submarines and bombers in the region have been substantial factors behind North Korea's nuclear ambitions (Sigal, 1998). Specific instances, such as the 1994 Agreed Framework, where North Korea agreed to freeze its nuclear program in exchange for aid, and its subsequent withdrawal in 2002

following President George W. Bush's "axis of evil" speech, illustrate how Pyongyang's nuclear pursuits are deeply intertwined with its need to counter perceived U.S. threats and ensure regime security.

North Korea's strategic environment is characterised by a persistent sense of threat and the need for self-reliance in defense. The enduring presence of U.S. forces and military exercises in South Korea contribute to Pyongyang's perception of encirclement. Additionally, the collapse of the Soviet Union and the loss of its support left North Korea feeling isolated and vulnerable. Consequently, North Korea has pursued nuclear weapons as a means of deterring external threats and ensuring regime survival. This pursuit is driven by the strategic calculations of its leaders, who view nuclear capabilities as essential for countering the overwhelming military power of the United States. The historical context and strategic environment thus play crucial roles in shaping North Korea's nuclear ambitions, with significant implications for regional and global security.

Strategic Calculations and Deterrence: North Korea's pursuit of nuclear weapons can be understood primarily through the lens of deterrence theory. By developing nuclear capabilities, North Korea aims to deter potential aggression from the United States and South Korea. Deterrence operates on the principle that possessing a credible nuclear arsenal can dissuade adversaries from attacking by raising the potential costs of such actions to unacceptable levels. This principle is evident in North Korea's strategic calculations, viewing nuclear weapons as the ultimate guarantor of national security. The development of these weapons is intended to create a balance of power that discourages any form of military intervention. A concrete example of this deterrent strategy can be seen in North Korea's response to joint US-South Korea military exercises, which it views as provocative. For instance, during the 2017 "Ulchi-Freedom Guardian" exercises, North Korea conducted a series of missile tests, including the launch of an intercontinental ballistic missile (ICBM) capable of reaching the US mainland. These tests were intended to signal North Korea's readiness and capability to retaliate against any perceived aggression, thereby reinforcing its deterrent posture (Hecker, 2010).

North Korea's nuclear doctrine, emphasizing the ability to retaliate against aggression, aligns with classical deterrence principles. This doctrine was explicitly stated in the 2013 law on Consolidating the Position of Nuclear Weapons State, which declares that North Korea will not use nuclear weapons unless its sovereignty is threatened by a nuclear-armed state. The regime's frequent missile tests and nuclear detonations serve to demonstrate its capabilities and resolve, thereby reinforcing its deterrent posture. For example, the September 2017 test of a hydrogen bomb, which North Korea claimed was capable of being mounted on an ICBM, significantly escalated tensions but also underscored its deterrent strategy. The test sent a clear message to the international community, particularly the United States, that North Korea possessed advanced nuclear capabilities and was prepared to use them if necessary. Such actions are designed to deter preemptive strikes and ensure that any attack on North Korea would result in unacceptable consequences for the aggressor (Gallucci, 2019). By continually showcasing its nuclear advancements, North Korea seeks to cement its status as a nuclear power and ensure that its security and sovereignty are preserved through a robust deterrent capability.

The principle of deterrence is further exemplified by North Korea's calculated demonstrations of its military prowess in response to perceived threats. The North Korean leadership under Kim Jong-un has been particularly vocal in its commitment to defending its sovereignty with nuclear force if necessary. This posture was evident in the numerous missile launches conducted in 2017, which were not only a show of strength but also a strategic communication to the world about North Korea's enhanced retaliatory capabilities. The leadership's public statements often emphasize the readiness and willingness to use nuclear weapons defensively, thereby reinforcing the credibility of their deterrence strategy (Hecker, 2010).

Moreover, North Korea's actions and rhetoric are often geared towards ensuring that its deterrent capability is taken seriously by its adversaries. The regime's extensive propaganda efforts highlight its nuclear achievements and the potential consequences of any aggression against it. This narrative is intended to instill a sense of inevitable and devastating retaliation in the minds of potential aggressors, thereby maintaining a stable deterrent equilibrium. The continuous development and testing of nuclear weapons and delivery systems serve both as a deterrent against external threats and as a means of consolidating internal power by demonstrating the regime's strength and resolve to its own population (Gallucci, 2019).

Through these actions, North Korea aims to solidify its nuclear deterrent posture and ensure that it remains a credible and formidable power on the global stage. The strategic use of nuclear deterrence not only aims to prevent military conflicts but also seeks to secure the regime's long-term survival against both external and internal challenges. By reinforcing its deterrent capabilities and communicating its willingness to use them if necessary, North Korea continues to shape its security environment in accordance with the principles of deterrence theory (Hecker, 2010; Gallucci, 2019). North Korea's strategic environment is characterised by a persistent sense of threat and the need for self-reliance in defense. The enduring presence of U.S. forces and military exercises in South Korea contribute to Pyongyang's perception of encirclement. Additionally, the collapse of the Soviet Union and the loss of its support left North Korea feeling isolated and vulnerable. Consequently, North Korea has pursued nuclear weapons as a means of deterring external threats and ensuring regime survival. This pursuit is driven by the strategic calculations of its leaders, who view nuclear capabilities as essential for countering the overwhelming military power of the United States. The historical context and strategic environment thus play crucial roles in shaping North Korea's nuclear ambitions, with significant implications for regional and global security.

International Responses and Security Dilemmas: The international response to North Korea's nuclear program has significantly influenced its deterrence strategy. Sanctions and diplomatic isolation imposed by the United Nations

and various individual states have aimed to curtail North Korea's nuclear ambitions. However, these measures have also reinforced the regime's narrative of external hostility and victimisation (Park, 2017). This external pressure has arguably intensified North Korea's resolve to maintain and advance its nuclear capabilities as a crucial means of ensuring its security. North Korea's leadership uses these international sanctions as evidence of a hostile world that seeks to undermine its sovereignty, thereby justifying the continuation and expansion of its nuclear program.

Moreover, the security dilemma is clearly visible in the region, as North Korea's nuclear advancements prompt neighbouring countries, such as Japan and South Korea, to enhance their own military capabilities. This situation risks triggering an arms race in East Asia, where increased military spending and capability development among these nations could further destabilize the region (Friedman, 2017). For example, Japan has increased its defense budget and pursued missile defense systems in response to North Korea's missile tests, while South Korea has strengthened its military alliance with the United States and developed its own advanced military technologies.

The ongoing cycle of action and reaction among these countries highlights the complex interplay of deterrence and the security dilemma. North Korea perceives the military enhancements of its neighbours as additional threats, which further fuels its justification for nuclear development. This reciprocal dynamic underscores the challenges of achieving long-term stability and peace in the region. The international community's efforts to curb North Korea's nuclear ambitions, while intended to enhance global security, have thus also contributed to a more entrenched and determined nuclear posture by Pyongyang (Park, 2017; Friedman, 2017).

In addition to regional security dynamics, global non-proliferation efforts have been impacted by North Korea's actions. The effectiveness of international treaties and agreements aimed at preventing the spread of nuclear weapons is called into question when a state like North Korea successfully develops and tests nuclear weapons despite widespread condemnation and sanctions. This situation undermines the credibility of international norms against nuclear proliferation and could encourage other states to pursue similar paths, believing that the benefits of nuclear deterrence outweigh the potential costs imposed by the international community (Park, 2017).

Through these actions and reactions, North Korea aims to solidify its nuclear deterrent posture and ensure that it remains a credible and formidable power on the global stage. The strategic use of nuclear deterrence not only aims to prevent military conflicts but also seeks to secure the regime's long-term survival against both external and internal challenges. By reinforcing its deterrent capabilities and communicating its willingness to use them, if necessary, North Korea continues to shape its security environment in accordance with the principles of deterrence theory (Hecker, 2010; Gallucci, 2019).

Implications for Regional Security: North Korea's nuclear armament has significant implications for regional security dynamics, exacerbating the risk of miscalculation and escalation during crises. The presence of nuclear weapons on the Korean Peninsula means that any military confrontation has the potential to rapidly escalate to nuclear exchanges, particularly given the United States' commitment to defending its allies, South Korea and Japan, through extended deterrence. This commitment involves intricate strategic calculations and the inherent dangers of rapid escalation (O'Hanlon, 2017). Additionally, North Korea's nuclear capabilities pose a direct challenge to the global non-proliferation regime, potentially encouraging other states to consider developing their own nuclear arsenals to secure their strategic interests. Consequently, the regional security environment is marked by heightened tensions and uncertainty, necessitating robust diplomatic efforts to manage and mitigate potential conflicts effectively.

Deterrence has been a significant factor driving North Korea's pursuit of nuclear weapons, influenced by a combination of historical grievances, strategic imperatives, and responses to international pressures. The regime's emphasis on establishing a credible nuclear deterrent aims to ensure its survival against perceived existential threats from the United States and its allies. This strategic pursuit is deeply rooted in North Korea's perception of a hostile international environment and the need to protect its sovereignty and regime stability. Historical context, such as the Korean War and subsequent military tensions, has profoundly shaped North Korea's security policies and its determination to maintain a robust deterrent (Cha & Kang, 2018).

While North Korea's nuclear armament has provided it with a sense of security in the short term, it has also escalated regional tensions and presented significant challenges to global non-proliferation efforts. The international community's response, including sanctions and diplomatic isolation, has not deterred North Korea but rather reinforced its commitment to its nuclear program. This dynamic illustrates the complexity of addressing nuclear proliferation in a way that balances the need for security with efforts to prevent the spread of nuclear weapons. Understanding the motivations and implications of North Korea's nuclear strategy is crucial for developing effective policies to address the intricate security dynamics of the Korean Peninsula and beyond.

The broader implications of North Korea's nuclear ambitions extend to the strategic calculations of other regional actors. For instance, Japan and South Korea have been compelled to enhance their military capabilities and deepen their security alliances with the United States in response to North Korea's nuclear threat. This arms buildup could trigger a regional arms race, further destabilizing the security environment in East Asia (Friedman, 2017). Additionally, the possibility of nuclear proliferation in the region could undermine global non-proliferation treaties and lead to a weakening of international norms against the spread of nuclear weapons.

To what extent has deterrence motivated the acquisition of nuclear armament by Pakistan?

Deterrence has been a crucial driver in Pakistan's quest for nuclear weapons. This strategic choice was influenced by a combination of historical conflicts, regional security dynamics, and the perceived threat from its neighbor, India. To fully grasp how deterrence has motivated Pakistan's nuclear armament, it is essential to delve into its security concerns, the

impact of India's nuclear capabilities, and the broader implications for regional and global security. Consequently, this paper examines the historical backdrop, strategic considerations, regional security climate, and international reactions to Pakistan's nuclear ambitions, demonstrating how central deterrence theory has been to its nuclear strategy.

Influence of India's Nuclear Capabilities: India's nuclear advancements have profoundly impacted Pakistan's decision to pursue nuclear weapons. The series of nuclear tests conducted by India in May 1998, known as "Operation Shakti," were a turning point in South Asian security, officially establishing India as a nuclear-armed state. This development posed a significant threat to Pakistan's security, compelling it to respond quickly to maintain strategic parity. Within weeks of India's tests, Pakistan conducted its own nuclear tests on May 28 and 30, 1998, under the codenames "Chagai-I" and "Chagai-II." These tests confirmed Pakistan's nuclear capability and reinforced its deterrent stance against India. Pakistan's swift response was driven by the necessity to avoid being at a strategic disadvantage in the region. Internal political pressures and the need to demonstrate sovereignty and technological capability also influenced Pakistan's decision to develop nuclear weapons (Perkovich, 1999). These events underscore how India's nuclear advancements have shaped Pakistan's strategic calculations and emphasized the importance of maintaining a credible deterrent to counter perceived threats.

The competitive dynamic between India and Pakistan has led to an arms race, with both nations heavily investing in the development and modernization of their nuclear arsenals. This ongoing rivalry highlights the extent to which India's nuclear capabilities have influenced Pakistan's strategic choices. For example, India's progress in missile technology and the development of the Agni series of ballistic missiles have prompted Pakistan to enhance its own missile capabilities. Pakistan's response includes the development of the Shaheen and Ghauri missile systems, designed to deliver nuclear warheads over considerable distances, thereby ensuring a credible second-strike capability. Additionally, India's introduction of multiple independently targetable reentry vehicles (MIRVs) has led Pakistan to explore similar technologies to maintain the balance of power (Tellis, 2012). These technological advancements on both sides illustrate the cyclical nature of the arms race, where each state's progress prompts a corresponding response from the other, perpetuating continuous strategic competition.

Pakistan's development of tactical nuclear weapons (TNWs) is a concrete example of how India's military strategies have shaped its nuclear posture. The introduction of India's Cold Start doctrine, which envisions rapid and limited conventional strikes into Pakistani territory, has significantly influenced Pakistan's deterrence strategy. In response, Pakistan developed the Nasr missile, a short-range ballistic missile capable of carrying nuclear warheads. The deployment of TNWs aims to deter any conventional military incursions by India by threatening a nuclear response at the tactical level. This strategy of integrating nuclear weapons into its conventional military doctrine is designed to counter India's conventional superiority and ensure that any aggression would be met with unacceptable risks (Khan, 2012). The development of TNWs reflects Pakistan's reliance on nuclear deterrence to address its strategic vulnerabilities and maintain a credible deterrent across all levels of potential conflict. The continuing evolution of both countries' nuclear doctrines and capabilities highlights the persistent influence of India's nuclear advancements on Pakistan's strategic decisions.

Historical Context and Security Concerns: Pakistan's nuclear ambitions have their roots in its historical conflicts with India, especially the wars of 1947-48, 1965, and 1971. The 1971 war, which resulted in the secession of East Pakistan (now Bangladesh), marked a pivotal moment that profoundly affected Pakistan's strategic thinking and security priorities. The crushing defeat and loss of a substantial portion of its territory not only humiliated Pakistan but also amplified its sense of vulnerability and underscored the pressing need for a robust deterrent to guard against future Indian aggression. The psychological impact of this defeat reinforced the belief that without a credible deterrent, Pakistan would remain vulnerable to coercion and military domination by India. In response, Pakistan accelerated its efforts to develop a nuclear program. This strategic shift became evident when Prime Minister Zulfikar Ali Bhutto convened a meeting of top scientists in 1972, signaling the formal initiation of Pakistan's nuclear weapons program. Bhutto's declaration that Pakistan would develop a nuclear bomb even if it meant the people had to "eat grass" epitomized the country's determination to achieve nuclear capability at any cost, highlighting the depth of its security concerns and the perceived existential threat posed by India (Kapur, 2007).

The urgency for Pakistan to develop its own nuclear capability intensified following India's "Smiling Buddha" nuclear test in 1974. India's successful detonation of a nuclear device was a stark demonstration of nuclear superiority and a strategic advantage that Pakistan could not afford to ignore. The test was perceived in Pakistan as a direct threat and a significant alteration in the regional balance of power. This perception prompted a more resolute and accelerated effort to develop a counterbalancing nuclear capability. Concrete instances of Pakistan's determination include the establishment of the Kahuta Research Laboratories in 1976, led by Dr. Abdul Qadeer Khan, which became central to Pakistan's uranium enrichment efforts. Additionally, Pakistan aggressively pursued the clandestine procurement of nuclear technology and materials from international sources to overcome technological and resource constraints. Pakistan's successful nuclear tests in May 1998, known as Chagai-I and Chagai-II, were direct responses to India's nuclear tests earlier that month, underscoring Pakistan's commitment to achieving strategic parity and ensuring its national security through a credible nuclear deterrent. These actions reflect Pakistan's strategic decisions driven by historical conflicts, existential security concerns, and the imperative of maintaining a deterrent capability against a nuclear-armed India (Khan, 2012).

Strategic Calculations and Deterrence: Deterrence theory has been pivotal in shaping Pakistan's nuclear strategy, aiming to dissuade India from launching conventional or nuclear attacks by threatening severe retaliation. This strategic

stance is based on the fundamental principle of deterrence: discouraging aggression by promising unacceptable consequences for the aggressor. Pakistan's nuclear doctrine explicitly includes the option of first use in response to conventional attacks that threaten its survival, demonstrating a clear commitment to maintaining a credible deterrent. This policy is intended to counterbalance India's conventional military superiority and ensure that any aggressive action would carry significant risks. For instance, during the Kargil conflict in 1999, both nations avoided escalating to full-scale war, largely due to the mutual presence of nuclear weapons. The potential for nuclear conflict acted as a deterrent, preventing the skirmish from escalating despite intense hostilities and international pressure (Khan, 2012). This incident highlights how nuclear deterrence has become an essential part of Pakistan's strategy to safeguard its security and sovereignty against a larger and more conventionally powerful neighbor.

Pakistan's strategy also involves maintaining and demonstrating a credible nuclear deterrent to dissuade India from leveraging its conventional military advantages. The development of various delivery systems, including ballistic and cruise missiles, exemplifies this strategy. For instance, Pakistan's development of the Shaheen and Ghaznavi missile systems, capable of delivering nuclear warheads over varying distances, illustrates its efforts to establish a credible deterrent capability. Additionally, the introduction of tactical nuclear weapons (TNWs) such as the Nasr missile aims to counter India's Cold Start doctrine, which envisions rapid, limited conventional strikes into Pakistani territory. By developing TNWs, Pakistan seeks to deter any potential conventional incursions at the tactical level, thereby strengthening its deterrent posture. This strategy of full-spectrum deterrence ensures that Pakistan can credibly threaten retaliation at all levels of conflict, from tactical to strategic, thus maintaining a stable deterrent relationship with India (Lavoy, 2013). The ongoing modernization and diversification of its nuclear arsenal underscore Pakistan's commitment to sustaining an effective deterrence strategy in the evolving security landscape of South Asia.

Pakistan's strategy also involves maintaining and demonstrating a credible nuclear deterrent to dissuade India from exploiting its conventional military advantages. The development of various delivery systems, including ballistic and cruise missiles, exemplifies this strategy. For example, Pakistan's development of the Shaheen and Ghaznavi missile systems, capable of delivering nuclear warheads over varying distances, illustrates its efforts to establish a credible deterrent capability. Additionally, the introduction of tactical nuclear weapons (TNWs) such as the Nasr missile aims to counter India's Cold Start doctrine, which envisions rapid, limited conventional strikes into Pakistani territory. By developing TNWs, Pakistan seeks to deter any potential conventional incursions at the tactical level, thereby reinforcing its deterrent posture. This strategy of full-spectrum deterrence ensures that Pakistan can credibly threaten retaliation at all levels of conflict, from tactical to strategic, thus maintaining a stable deterrent relationship with India (Lavoy, 2013). The continuous modernization and diversification of its nuclear arsenal highlight Pakistan's commitment to sustaining an effective deterrence strategy in the evolving security dynamics of South Asia.

The development of tactical nuclear weapons (TNWs) such as the Nasr missile is aimed at deterring India's Cold Start doctrine, which envisions rapid, limited conventional strikes into Pakistani territory. By developing TNWs, Pakistan seeks to counter any potential conventional incursions at the tactical level, thereby reinforcing its deterrent posture. This strategy of full-spectrum deterrence ensures that Pakistan can credibly threaten retaliation at all levels of conflict, from tactical to strategic, thus maintaining a stable deterrent relationship with India (Lavoy, 2013). The continuous modernization and diversification of its nuclear arsenal underscore Pakistan's commitment to sustaining an effective deterrence strategy in the evolving security dynamics of South Asia.

Regional Security Environment: The regional security environment in South Asia, defined by historical animosities and frequent military confrontations, has bolstered Pakistan's dependence on nuclear deterrence. The presence of unresolved territorial disputes, such as the ongoing Kashmir conflict, and incidents like the 2001-2002 military standoff following the attack on the Indian Parliament, underscore the region's volatility (Ganguly & Kapur, 2010). In this context, Pakistan perceives its nuclear arsenal as crucial for maintaining strategic equilibrium and preventing India from exploiting its conventional military dominance. The concept of "full spectrum deterrence" adopted by Pakistan is intended to address all levels of conflict, ensuring that any form of aggression would be met with a credible nuclear response (Sultan, 2014). This approach is designed to cover the entire spectrum of conflict scenarios, from limited conventional skirmishes to full-scale warfare, thereby reinforcing Pakistan's strategic posture against a more conventionally powerful neighbor.

International Response and Global Implications: The international community's reaction to Pakistan's nuclear program has been varied, reflecting broader concerns about nuclear proliferation and regional stability. Initially, sanctions and diplomatic pressures were used to discourage Pakistan from developing nuclear weapons, but these efforts met with limited success. Eventually, Pakistan was recognized as a nuclear state, albeit unofficially, shifting the focus towards managing the implications of its nuclear capabilities rather than attempting to reverse them. The US-Pakistan relationship, marked by alternating periods of strategic cooperation and tension, exemplifies the complex interplay between non-proliferation objectives and geopolitical interests (Sagan, 2011). Additionally, Pakistan's nuclear arsenal has heightened concerns about nuclear security and the potential proliferation of nuclear materials to non-state actors, further emphasizing the global ramifications of its deterrence strategy.

Deterrence has been a key driving force behind Pakistan's pursuit of nuclear weapons. The historical backdrop of its conflicts with India, strategic efforts to counter India's conventional and nuclear capabilities, the regional security environment, and the international community's response have all influenced Pakistan's nuclear strategy. By establishing a credible nuclear deterrent, Pakistan aims to secure its safety, maintain strategic parity with India, and deter aggression. This heavy reliance on nuclear deterrence highlights the broader challenges of achieving stability in a region

characterized by deep-seated rivalries and frequent conflicts, underscoring the necessity for continued efforts to manage and mitigate the risks associated with nuclear proliferation.

CONCLUSION

Deterrence and the security dilemma are essential concepts in international relations that have deeply impacted the strategic actions of states. Deterrence involves using threats to prevent an adversary from taking an undesirable action by persuading them that the costs will surpass the benefits. It depends on credible threats and the capability to enforce them, creating a balance of power that discourages aggressive moves. Conversely, the security dilemma describes a situation where measures taken by a state to enhance its security, such as increasing its military capabilities, unintentionally heighten insecurity in other states. This can trigger an arms race and escalating tensions, even if no side desires conflict. Both concepts are vital for understanding the dynamics of nuclear armament concerning North Korea and Pakistan.

North Korea's acquisition of nuclear weapons has been significantly driven by the principle of deterrence. North Korea perceives a constant threat from the United States and South Korea, influenced by historical conflicts and the ongoing military presence in the region. By developing a credible nuclear deterrent, North Korea aims to prevent aggression and ensure the regime's survival. Its frequent missile tests and nuclear detonations serve to display its capabilities and resolve, thereby reinforcing its deterrent stance. The historical context, including the Korean War and the collapse of the Soviet Union, has heightened North Korea's sense of vulnerability, making nuclear armament a strategic necessity to counterbalance perceived threats and ensure national security.

Similarly, Pakistan's pursuit of nuclear weapons has been heavily influenced by deterrence theory in response to India's nuclear capabilities and conventional military superiority. The historical conflicts with India, especially the wars of 1947-48, 1965, and 1971, and India's nuclear tests in 1974 and 1998, have underscored the need for Pakistan to develop its own nuclear arsenal. By acquiring nuclear weapons, Pakistan aims to deter India from considering military aggression, ensuring strategic parity and national security. The development of tactical nuclear weapons and advancements in missile technology reflect Pakistan's dedication to maintaining a credible deterrent. Both North Korea and Pakistan exemplify how the principles of deterrence and the security dilemma have shaped their strategic choices, highlighting the complex interplay between national security imperatives and regional stability in the nuclear era.

RECOMMENDATIONS

Based on the above conclusion, the paper recommended that:

- 1) To mitigate the risks associated with nuclear deterrence and the security dilemma, it is crucial to strengthen diplomatic engagement and implement confidence-building measures between North Korea, Pakistan, and their respective adversaries. Enhanced diplomatic efforts, such as establishing regular communication channels and engaging in bilateral or multilateral negotiations, can reduce misunderstandings and miscalculations. Confidence-building measures, such as transparency in military exercises and nuclear capabilities, can help to alleviate mutual suspicions and create a more stable security environment. This approach aims to de-escalate tensions and promote trust, ultimately contributing to regional and global stability.
- 2) Encouraging regional non-proliferation initiatives is essential to address the proliferation of nuclear weapons and the accompanying security dilemmas. Establishing nuclear-weapon-free zones or regional arms control agreements in South Asia and East Asia can provide a framework for reducing the nuclear threat. Additionally, involving major powers and international organizations in supporting these initiatives can enhance their effectiveness. Providing security assurances and economic incentives to North Korea and Pakistan to limit their nuclear programs can also play a vital role. This strategy not only aims to curb nuclear proliferation but also fosters a collaborative approach to regional security and stability.

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