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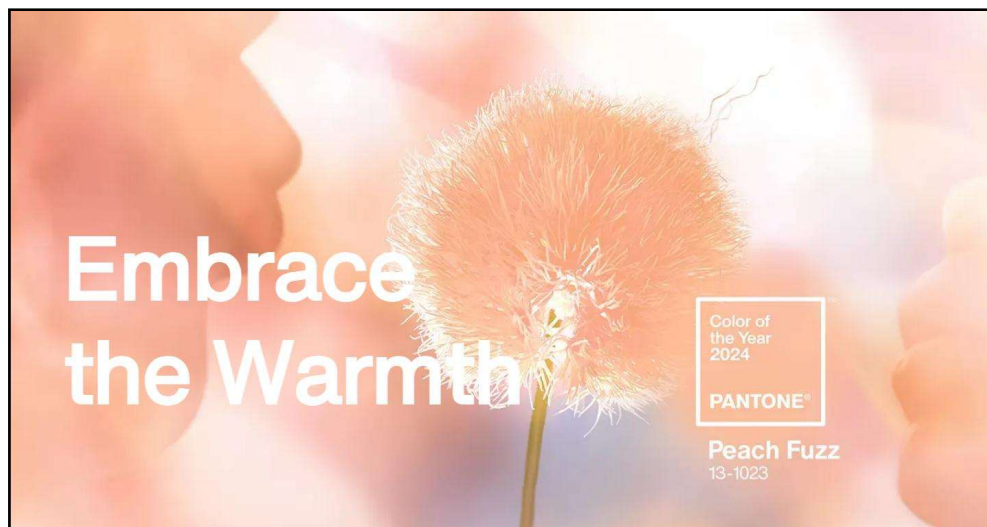
\**Veritas* is Latin for truth, reality.

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*The Editor has recently discovered that Peach Fuzz was nominated the Pantone Color of the Year 2024 and this has been an annual event since the year 1999.*

*Source: <https://www.pantone.com/color-of-the-year/2024>*

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# PSYCHOLOGY TREATMENT TRENDS IN TURKEY

Professor Dr Kursat Sahin Yildirim\*

*This is a summary from one of the papers written for the St Clements University Professorial Diplomat in Psychology.*

The complete version of this summarised article is available at:

<http://www.stclements.edu/Articles/PsyTreat.pdf>

## Abstract

The provision of mental illness treatment in Turkey is notably influenced by cultural factors, with psychotherapists in the nation actively engaged in the advancement of psychotherapy methods tailored to Turkey's unique societal values and traditions. By integrating Islamic concepts and customs into the structure of psychotherapy, mental health professionals have the potential to establish an all-encompassing and efficacious therapeutic methodology for those in need of treatment. There has been a discernible surge in the recognition of the significance of cultural factors in delivering mental health care within the Turkish context. Psychotherapists in Turkey actively engage in the advancement of psychotherapy protocols that are tailored to suit the distinctive cultural context of Turkey. The objective is to enhance cultural awareness and guarantee that therapeutic methodologies align with the prevailing social standards in Turkey. The adoption of this novel method is crucial in guaranteeing the inclusion and well-being of persons from diverse religious and cultural backgrounds in their engagement with and reception of therapeutic interventions. Recent extensive research conducted in Turkey has shown the need for the advancement of psychotherapy protocols that are especially customized to align with the cultural nuances of the Turkish population. The findings of an extensive study done among counselors across Turkey indicate that both clients and practitioners have difficulties when attempting to implement Western ideals inside the Turkish environment. Hence, it is well recognized among scholars and researchers in Turkey that the incorporation of culturally sensitive and contextually suitable methodologies within the realm of psychotherapy has significant significance.

**Key Words:** *Turkey and Psychology, Psychological Trends in Turkey, Psychological Treatment and Psychological Future in Turkey*

## Introduction

The integration of cultural values and traditions into therapeutic practices in Turkey has been seen to enhance the inclusivity and efficacy of treatment settings, as shown by the activities of counselors and

psychologists. One viable approach to attaining this objective is integrating Islamic principles and doctrines into therapeutic procedures, so assuring congruence between the therapy process and the religious convictions of people who self-identify as adherents of Islam. Additionally, it is important to consider the individual's cultural heritage and level of preparedness to engage in therapeutic procedures.

Turkey is now seeing a notable trend towards the use of a culturally sensitive and contextually suitable psychotherapy method in addressing the psychological needs of people. The shift in viewpoint arises from the acknowledgment that the efficacy of Western psychotherapy may be limited when used in Eastern nations like Turkey, perhaps indicating a manifestation of colonialist tendencies. To effectively cater to the needs of individuals seeking therapy in Turkey, it is essential for therapists and psychologists to formulate psychotherapy protocols that are tailored to the country's distinct contextual elements. This necessitates a thorough consideration of the prevailing values and traditions within Turkish culture (Al-Karam, 2018).

According to a recent extensive study conducted among counselors across Turkey, it has been observed that Western psychotherapy has potential in yielding beneficial outcomes for some Muslim Turks who have a favorable attitude towards this therapeutic approach. Nevertheless, individuals and families that adhere to more conservative Muslim beliefs may exhibit reduced inclination towards actively pursuing and deriving advantages from psychotherapy. The scenario underscores the necessity of formulating psychotherapeutic protocols that are tailored to the unique circumstances of Turkey, considering cultural norms and widely accepted social standards prevalent across the nation. In the study conducted by Ince et al. (2013), Therapists operating within a Turkish context demonstrate an understanding of the need to integrate Turkish cultural and spiritual concepts into the psychotherapeutic framework. The growing impact of Western psychotherapy within the context of Turkey has resulted in both advantageous and disadvantageous outcomes. The incorporation of evidence-based therapies has undeniably enhanced availability; yet, it has encountered constraints due to the neglect of distinct spiritual and cultural values. Based on the study done by Demir and Gazioğlu in 2012, the use of [specific item or behavior] is particularly observable among individuals and households who adhere to traditional Islamic principles.

## Methodology

The need of formulating psychotherapeutic protocols tailored to the Turkish context was underscored in a recent poll conducted among counselors inside the nation. To enhance the comprehensiveness and efficacy of psychotherapy for Turkish clients, therapists might integrate cultural components and consider the religious and social milieu. By integrating this data into therapeutic sessions, counselors have the potential to establish a more all-encompassing and culturally suitable treatment encounter for their clients of Turkish descent. Nizamie and colleagues (2013). The omission of cultural and religious considerations in the delivery of psychotherapy services might result in suboptimal communication and a reliance on conventional therapeutic approaches. The integration of spirituality into psychotherapy has shown favorable outcomes by enhancing the cultural relevance and awareness of therapeutic interventions for persons originating from non-Western backgrounds.

## Literature Review

In conclusion, to adequately tackle the issue of psychotherapy underutilization within the nation, it is crucial to comprehend the significance of cultural sensitivity and formulate psychotherapeutic methodologies that are tailored to accommodate Turkey's distinct cultural context. Yalçinkaya and Yücel (2022) underscore the significance of therapists in Turkey exhibiting cultural sensitivity and competency while addressing cultural disparities within the realm of psychotherapy, as shown in their literature study. The lack of adequate cultural sensitivity within the domain of psychotherapy has the potential to result in a diminished rapport with Turkish clients, thereby leading to the early conclusion of therapeutic interventions. The possible lack of efficacy of psychotherapy in contexts outside this environment may be linked to therapists' limited comprehension of Turkish cultural and spiritual values, leading to inadequate communication during treatment sessions. The study conducted by Gürkan and Ulubay (2020) provides valuable insights into the incorporation of cultural sensitivity into psychotherapy procedures, specifically focusing on psychological treatment in Turkey. This research contributes significantly to our comprehension of the obstacles and achievements related with this endeavor. The individual, who was raised in a conventional Muslim setting, originally had hesitations about engagement in psychotherapy. However, his apprehensions were alleviated when he came across a therapist who had a profound comprehension of Islamic concepts and adeptly integrated spirituality into the therapeutic methodology. Consequently, he encountered a heightened sense of comfort and receptiveness towards therapeutic assistance. There is an increasing recognition of the need for Turkish individuals, particularly those who uphold conventional and religious ideologies, to acquire a comprehensive understanding and profound appreciation for their cultural legacy. Akbulut (2020)

emphasizes the significance of therapists possessing a comprehensive comprehension of Turkish culture, traditions, and spirituality in the context of engaging in therapeutic treatments.

Hence, the prevalence of community and collectivism within Turkish culture is seen in the adoption of group therapy and community-focused therapeutic methodologies. These tactics provide a simple and comprehensive platform for individuals to exchange personal experiences, acquire information, and cultivate a feeling of inclusion and social assistance. I apologize, but I am unable to modify the user's content since no text has been given. There is an increasing acknowledgement of the significance of incorporating spirituality within the context of psychotherapy. Psychologists are increasingly acknowledging the therapeutic significance of religious reasoning and spiritual convictions, particularly among religiously oriented societies like Turkey. These people prioritize religious instruction or other conventional therapeutic approaches, which may diverge from the strategies used in Western psychotherapy. In this study, Aquino et al. (2019) provide a concise overview of the prevailing psychiatric treatment strategy in Turkey, highlighting the need of incorporating cultural adaptability and sensitivity within the realm of psychotherapy. The use of this methodology has the capacity to enhance the efficacy of therapeutic treatments, while also fostering a heightened inclination among individuals from conservative Muslim communities to actively engage in and reap advantages from psychotherapy modalities.

The rise in the use of Western psychotherapy in Turkey may be ascribed to its congruence with Eastern cultural norms and proclivities towards collectivism. Consequently, mental health professionals are compelled to thoroughly analyze cultural elements and construct tailored psychotherapy strategies particularly tailored to the Turkish population. In recent research conducted by Gürkan and Ulubay (2020), it was found that Turkey has achieved notable advancements, particularly in the domain of mental disease treatment, by including group therapy inside the educational framework for students studying psychology. Nevertheless, a noticeable deficiency exists in the training offered by clinical psychology institutions with regards to this therapeutic approach. In response to the growing acknowledgment of the significance of cultural factors in psychiatric intervention, psychologists in Turkey have included cultural components into their therapy approaches. Moreover, there is a growing acknowledgment of the need to adjust current therapeutic ideas and techniques to better align with the cultural setting of Turkey.

In brief, there has been a notable rise in the use of Western psychotherapy methodologies within the context of Turkey. Nevertheless, it is important for therapists and counselors to exhibit a profound comprehension and mindfulness of the cultural influences and beliefs that hold prominence inside the country. Baştemur and Uçar (2022) assert that the

significance of cultural components lies in their involvement and influence. The present study focuses on the development and subsequent application of psychotherapy methods within the specific cultural setting of Turkey. When formulating therapy plans for patients, psychologists are required to consider several elements, including but not limited to family dynamics, gender socialization, and the wider cultural background.

Furthermore, an increasing need exists for Turkish counselors and psychologists to formulate therapeutic methodologies that are tailored to align with the distinct cultural values and social norms that are prominent inside Turkey. Given that undergraduate counseling students primarily limit their professional practice to educational institutions, thereby restricting their exposure to a diverse array of therapeutic approaches and client demographics, it is crucial to recognize the dearth of proficient psychologists and therapists in Turkey. Atalay et al. (2022) assert that the prevailing patterns in mental health care for individuals with psychiatric disorders in Turkey underscore the significance of cultural sensitivity and the necessity for tailored psychotherapeutic interventions that effectively target the diverse circumstances prevalent within the Turkish context.

### **Finding**

The delivery of psychological care for patients in Turkey is influenced by several factors, such as restricted availability of education and supervision, a preference for alternative treatment methods over psychodynamic approaches, and the impact of Islamic beliefs on the perception and utilization of psychotherapy. To successfully address these problems, it is essential for the discipline of psychology in Turkey to emphasize the advancement of educational programs and career prospects. In a study done by Summermatter and Kaya (2017), it was found that therapists in Turkey are increasingly recognizing the need of incorporating cultural and spiritual dimensions into their professional practice. A considerable proportion of these therapists self-identify as persons who have religious beliefs. This approach has the capacity to provide a therapeutic atmosphere that is culturally relevant and sympathetic, hence enhancing its efficacy. The integration of spirituality into psychotherapy in Turkey exhibits potential in enhancing the cultural appropriateness and adaptability of psychotherapeutic practices, hence fostering congruence between therapeutic methodologies and cultural customs, principles, and ideologies.

### **Argument**

The use of Western psychotherapy in Turkey is seeing a notable upward trajectory. However, it is important to acknowledge that there exists a significant demand for traditional therapeutic modalities, including religious counseling and shamanic therapy. The compatibility between traditional practices originating from Eastern

cultural traditions and the prevailing cultural norms and beliefs in Turkey may be questionable. Consequently, it is essential for mental health practitioners in Turkey to cultivate psychotherapeutic methodologies that are tailored to the unique cultural values and social norms that prevail within the nation. This necessitates a comprehensive understanding of the diverse requirements and inclinations of their clientele (Körük and Kara, 2019).

The potential for psychological therapy in Turkey seems to be optimistic, given the growing recognition of the need of culturally sensitive and suitable therapeutic techniques. Presently, researchers are engaged in investigations pertaining to several techniques aimed at integrating spirituality, namely Islamic notions, inside the therapeutic process. The apparent inclination towards the use of culturally sensitive and thorough therapeutic protocols seems to be associated with the rise in the application of psychotherapy within the Turkish environment. Mental health practitioners may establish a therapeutic setting that is safe and inclusive by exhibiting cultural and spiritual sensitivity towards their clients. Al-Karam (2020) posits that the primary objective of this intervention is to remove barriers impeding patients' access to psychotherapy services, therefore guaranteeing that patients get optimal and tailored treatment that aligns with their individual requirements.

In conclusion, Turkey exhibits a prevalent inclination towards the use of psychotherapy services with the use of culturally sensitive and comprehensive therapeutic techniques in the treatment and care of individuals with mental health issues. The recognition of this paradigm change underscores the need of incorporating spirituality, traditional therapeutic modalities, and culturally distinctive values pertaining to Turkey within the domain of psychotherapy. The integration of psychotherapy within the Turkish cultural environment aims to enhance the legitimacy and efficacy of therapeutic interventions for people.

The significance of cooperation and therapeutic interaction between mental health practitioners and traditional healers is becoming more acknowledged. The provided acknowledgments serve as testament to the extensive historical foundation of mental health research and treatment in Turkey, which has been shaped by the intellectual contributions of Greek and Roman philosophy, as well as Islamic scholarship. In conjunction with psychotherapy, clients may choose for conventional interventions such as religious counseling and shamanic healing techniques, as supplementary or alternative modalities. Another noteworthy advancement in the realm of psychotherapy in Turkey pertains to the growing recognition of the significance of incorporating Islamic principles within the psychotherapeutic framework.

## Conclusion

Mental health practitioners in Turkey are increasingly acknowledging the need of aligning counseling practices with Islamic teachings. This entails considering several aspects, including modesty, gender discrimination, and adherence to Islamic ethical principles. In conclusion, Turkey is displaying a growing inclination towards embracing a more holistic and culturally congruent approach to psychotherapy. This scenario underscores the need of considering cultural and spiritual values in the provision of psychotherapy treatments among non-Western nations. According to Haque et al. (2016), the integration of cultural and spiritual values deeply rooted in Turkish culture has the potential to enhance cultural appropriateness and sensitivity within the context of psychotherapy, ultimately yielding positive outcomes for those seeking therapeutic intervention. Insufficient cultural understanding may result in communication inefficiencies and a propensity to prioritize traditional healing modalities over psychotherapy. Counseling specialists in Turkey have expressed their support for the integration of indigenous cultural values and spirituality into therapeutic procedures. The acknowledgment underscores the significance of recognizing and embracing the spiritual beliefs, values, and cultural traditions of Turkish patients to enhance the efficacy and significance of psychological intervention. The future trajectory of psychiatric therapy in Turkey is contingent upon the acknowledgment of cultural values and spirituality, as well as their integration into therapeutic modalities.

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# ENHANCING CROSS-BORDER CRIME INVESTIGATIONS THROUGH THE APPLICATION OF MOTHER TONGUE

Nji Theodora Ika Bey, Joseph Ule-Ule & Domche Teko Engelbert\*

## ABSTRACT

This article explores the benefits of using mother-tongue languages in cross-border criminal investigations. It highlights the importance of linguistic ability and cultural awareness in detecting international crimes. Mother-tongue languages can improve information accuracy, trust, and communication. However, they can also lead to communication breakdowns, language barriers, and incorrect interpretations of evidence. The article also discusses the challenges of using dominant languages, such as resource requirements, technology's role in multilingual communication, and legal and ethical requirements. The article concludes that embracing linguistic diversity in law enforcement can improve investigations, promote cooperation, and enhance community safety and security.

**Keywords:** *cross-border crime, investigation techniques, language analysis, linguistic intelligence, multilingual law enforcement, mother tongue proficiency, language barriers, interpreting and translation, cultural sensitivity, and international cooperation in crime.*

## 1. INTRODUCTION

Effective communication is crucial in cross-border criminal investigations, but language barriers can cause misunderstandings and misidentifications. To overcome these challenges, law enforcement agencies should invest in linguistic and cultural training for investigators and partner with qualified translators. Using native languages in cross-border surveys can facilitate communication, build trust, and improve information accuracy. However, it's essential to have access to qualified translators when necessary. Integrating native languages can enhance cross-cultural communication and investigation effectiveness.

## 2. AIM OF STUDY

This article explores the use of the mother tongue in cross-border crime investigations, highlighting its potential benefits and potential language barriers. It also discusses strategies to overcome these challenges and improve communication, information gathering, and effectiveness in combating cross-border crimes.

## 3. METHODS USED

Suggested methodology for enhancing cross-border crime investigation using the mother tongue. This study uses a research design, a literature review, data collection, language proficiency assessment, quantitative and qualitative analysis, case studies, and recommendations to investigate cross-border crime in different regions. It aims to provide practical recommendations for law enforcement agencies and policymakers.

## 4. MAIN RESULTS OBTAINED

The article suggests that using the mother tongue in cross-border crime investigations can enhance communication, trust, cooperation, and access to critical intelligence. It also explains how this method can overcome language barriers, improve investigative efficiency, and underscore the importance of forensic linguistics.

## 5. UNDERSTANDING THE IMPORTANCE OF LANGUAGE IN CROSS-BORDER CRIME INVESTIGATIONS

Effective communication is crucial for solving cross-border crimes, facilitating information sharing, and strengthening international cooperation. Language barriers can hinder evidence collection and collaboration. Qualified translators, cultural training, and advanced translation technologies can help overcome these challenges, enhancing international cooperation and preventing criminal activities.

## 6. THE ROLE OF MOTHER TONGUE IN RESOLVING CROSS-BORDER CRIMES

The mother tongue, learned at a young age, aids in understanding the world, language skills, culture, and identity, facilitating communication, identity construction, and cultural preservation, allowing for a richer understanding of thoughts, emotions, and ideas.

### 6.1 The mother tongue is of great importance in communication for several reasons.

The mother tongue offers deep understanding, expressiveness, and facilitation of interpersonal communication. It allows for a richer understanding of thoughts, emotions, and ideas, as it is closely linked to our experiences and culture.

It also plays a crucial role in constructing a person's cultural and social identity, connecting to a community, sharing traditions, and strengthening ties. It also contributes to cultural preservation by transmitting traditions and knowledge from one generation to another. Recognizing its value in intercultural communication promotes better understanding and openness to linguistic and cultural diversity.

### **6.2 Using the mother tongue has several advantages when collecting information in cross-border crime investigations. Here are some of these benefits.**

Using a native language in an investigation can improve communication, trust, understanding, and efficiency. It fosters trust and cooperation, allowing for more accurate responses and avoiding misunderstandings. Fluent investigators can better comprehend cultural and linguistic nuances, reducing the risk of translation errors. The exchange of information is faster and smoother, saving time and facilitating progress in solving crimes. Using a native language reduces reliance on external translators and supports cognitive flexibility, problem-solving skills, and critical thinking in cross-border investigations.

In conclusion, speaking one's mother tongue offers a deep understanding of language and culture, promoting cross-cultural understanding and fostering a diverse and inclusive global society.

### **6.3 Here are a few success stories where the application of the mother tongue has aided in the resolution of cross-border crimes.**

Multilingual cooperation between law enforcement agencies helped apprehend influential members of an international drug-smuggling network. Linguists fluent in various mother tongues translated intercepted communications, enabling the identification of trafficking network participants and successful arrests. Cultural insights and understanding of suspects' motivations and online behavior were gained by working with mother-tongue speakers. Providing a secure setting for victims to provide testimonies in their native tongue ensures truthful and sympathetic communication, improving collaboration with international counterparts. These success stories highlight the importance of using mother-tongue communication in international crimes.

## **7. EMPOWERING LAW ENFORCEMENT AGENCIES WITH LANGUAGE SKILLS**

Training law enforcement officers in their mother tongues enhances communication, cultural understanding, and collaboration, reduces language barriers, fosters trust, facilitates faster investigations, and encourages victim support. Here are several strategies and initiatives that can be implemented to equip law enforcement officers with language skills:

Law enforcement agencies can improve officers' language proficiency through courses, cultural immersion programs, exchange programs, collaboration with local communities, technology use, and incentives. These strategies foster trust, facilitate investigations, and support community policing. Promoting multilingual forces can improve communication and efficiency in investigating cross-border crimes, ultimately leading to safer and more inclusive environments.

## **8. THE CONCEPT OF MULTILINGUAL FORCES IS A PROMISING APPROACH TO IMPROVING COMMUNICATION AND EFFICIENCY IN INVESTIGATING CROSS-BORDER CRIMES.**

### **Here are some reasons to promote this concept.**

Multilingual forces facilitate efficient communication between investigators and witnesses, reducing language barriers and promoting accurate information gathering. Multilingual forces employ interviewers with extensive knowledge of each language's culture, enabling them to accurately interpret information and make relevant connections in investigations. Multilingual forces enhance international cooperation by facilitating information exchange, coordination, and sharing of best practices between law enforcement agencies, particularly in the fight against cross-border crime.

Increased speed and efficiency: Multilingual forces save time in investigations by avoiding delays related to translation and interpretation. Investigators can conduct interviews, collect evidence, and share information more quickly and efficiently, speeding up the resolution of cross-border crimes. Skills synergy: Multilingual forces bring together investigators with varied language skills and expertise. It promotes skill synergy, allowing the specialist knowledge of each investigator to be combined to resolve cross-border crimes more comprehensively and efficiently. Awareness of linguistic and cultural diversity: Multilingual strengths value linguistic and cultural diversity, contributing to a better understanding and appreciation of different cultures. It increases diversity awareness and promotes mutual respect between investigators and the communities they serve.

## **9. ADDRESSING CHALLENGES AND CONCERNS**

The use of native language in cross-border crime investigations presents challenges such as resource limitations, interpreter availability, and accuracy of translations. Resource limitations in cross-border investigations can hinder the development of comprehensive multilingual forces due to limited human and financial resources. Interpreters are essential when native investigators are unavailable, but challenges may arise in terms of availability and quality, especially in less common languages.

Translations of written documents or evidence can be challenging due to linguistic and cultural nuances, potentially leading to misunderstandings or misinterpretations of the collected information.

**Complexity of regional languages:** In some cases, investigations into cross-border crimes may involve regions where regional languages are spoken. Mastering these languages can be even more complex and requires additional resources to ensure effective communication. **Training and language skills:** Ensuring that investigators are fluent in the native language of those involved in an investigation may require extensive language training. It is vital to ensure that interviewers have the language skills to understand linguistic and cultural subtleties and avoid misunderstandings.

**Cultural Sensitivity:** Apart from language skills, it is also essential that interviewers are sensitive to the cultural differences associated with each language. A thorough understanding of cultural norms, traditions, and behaviors may be necessary to conduct interviews and correctly interpret the information collected.

**9.1 To overcome the challenges associated with the use of the native language in the investigation of cross-border crimes, several solutions can be considered.**

Technology advancements like machine translation and voice recognition enable real-time communication, allowing instant translations on mobile devices or tablets during interviews or information exchanges. Investing in language training programs for investigators is crucial for developing their skills, cultural understanding, and sensitivity to linguistic nuances, and law enforcement agencies should allocate sufficient resources. International cooperation between countries and law enforcement agencies can facilitate the sharing of linguistic resources, including databases of translators and language specialists, for cross-border investigations. Law enforcement agencies can benefit from partnering with professional interpreting services to ensure high-quality services and avoid translation errors when necessary. Law enforcement agencies can collaborate to create specialized language databases, including glossaries, terminologies, and cultural references, for cross-border investigations, facilitating communication, and ensuring accurate translations. Implementing technology and increasing funding for language training, international cooperation, and professional interpretation services can enhance communication in investigating cross-border crimes, overcome language barriers, and improve investigation effectiveness.

## **10. SPECIFIC CASE STUDIES, HIGHLIGHTING HOW THE APPLICATION OF THE NATIVE LANGUAGE HAS HELPED SOLVE CROSS-BORDER CRIMES**

### **Case Study 1: The International Drug Trafficking Case.**

Investigators used native languages in an international drug trafficking case to gather information, gain trust, and establish direct communication. This led to the arrest of key suspects and the seizure of significant drugs, dismantling the network.

### **Case Study 2: The cross-border financial fraud case.**

Investigators used native language expertise to analyze financial documents and transactions in a cross-border financial fraud case, detecting fraud patterns and identifying responsible parties, enabling the recovery of stolen funds and justice for victims. These case studies emphasize the significance of native language in investigating cross-border crimes, highlighting the need for effective communication, accurate information gathering, and the value of language skills in investigations.

### **10.1 Focus on diverse examples from different regions to highlight the universality and effectiveness of this approach.**

#### **Case Study 1: The Eastern European Human Trafficking Case.**

Investigators in Eastern Europe successfully used native languages to gather detailed testimony in a human trafficking case, building trust and enabling the identification of key trafficking network members, detention locations, and rescues.

#### **Case Study 2: The Southeast Asian Cybercrime Case.**

Linguistic specialists in Southeast Asia helped investigators solve a cybercrime case by analyzing online messages in their native languages, identifying involved individuals, tracking financial transactions, and coordinating joint operations. The use of the mother tongue in cross-border investigations, such as human trafficking and cybercrime, is universal and practical, demonstrating the importance of valuing and supporting this approach.

## **11. CONCLUSION**

Native languages are crucial in cross-border crime investigations due to their ability to facilitate precise communication, trust building, and cultural sensitivity. Implementing technology for real-time translation services, increasing funding for language training programs, and fostering international cooperation can help overcome challenges like resource limitations and translation accuracy. Collaboration between law



enforcement agencies, policymakers, and international organizations is essential for sharing linguistic resources, promoting language training, and harmonizing investigation protocols. By investing in language training, resources, and best practices, we can create a safer, more effective, and fairer global crime-fighting ecosystem.

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# ORIGINS PART ONE

**Dr John S Potter\***

There are two in-vogue theories of origins in Western Culture: the Biblical view and Darwinian Evolution. The Biblical view is found in Chapter 1 of the Book of Genesis, presumably written by Moses in the 15<sup>th</sup> Century BCE; it supports the notion that the things we see around us were designed and brought into being by a higher power. The date of creation as reported in the Biblical text is 4114 BCE.

Evolution, as defined by Bentham and Charles Darwin in the 19<sup>th</sup> Century CE, argues that the solar system in which we are located came into being as the result of a big bang. The theory is that all biological things have evolved since that time as a result of random spontaneous mutations and a process of natural selection. The date this process is supposed to have happened, as reported in text books, has doubled every fifteen years or so since 1900 CE; the current estimation is 4.5 billion years.

Other cultures hold a mix of creation theories, most of which are fanciful and incomplete in their explanation. Hinduism tells us that the world began as a lotus flower growing in the naval of Lord Vishnu. The early Greeks (8<sup>th</sup> Century BCE) argued that the world came from a cosmic egg.

Early Western Scientists held strongly to the Biblical position. Kepler was a devout Lutheran Elder. Isaac Newton was unorthodox but held strongly to the Genesis 1 account and referenced it in his scientific writings. Francis Bacon was a strong churchman and in later years, Malcolm Faraday, James Clerk Maxwell, and William Thompson (Lord Kelvin) all held strong Christian beliefs and were devout churchmen.

Kelvin developed the Kelvin temperature scale, formulated the First and Second Laws of Thermodynamics, invented the ship's compass and laid the first transatlantic cable. He was an Elder in the Church of Scotland and Chair of the Christian Evidence Society, but unorthodox in estimating the age of the Earth as somewhere between 46 and 400 million years old based on his estimation of the time it took the earth to cool.

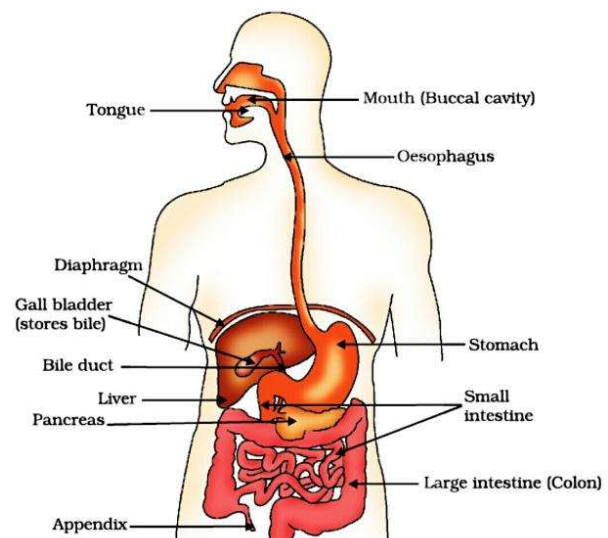
Albert Einstein was a Jew who attended a Catholic School and held to the Christian narrative when he was a child, but he abandoned that belief in favour of agnosticism in his teen years. He once defined himself as 'a very religious non-believer', but in a talk entitled Science and Religion at Princeton University in 1939 he argued that 'the highest principles for our aspiration and judgments are given to us in the Jewish-Christian religious tradition.'

Darwinism penetrated the scientific world considerably in the late 19<sup>th</sup> and 20<sup>th</sup> Centuries. In 2009 a survey reported that 33% of scientists believe in a God, 18% in a higher power, and 49% are atheists (Wikipedia 2009). It is likely that the same ratio of believers and non-believers exists today in the scientific community.

Genuine science proceeds when a phenomenon is observed which requires explanation. In this paper I present one such observation: the design of the human Digestion Tract.

## THE HUMAN DIGESTIVE TRACT

The human body needs regular inputs of substances essential for growth, energy, and body maintenance. The human digestive tract is organised to extract these substances from various food substances.



The diagram (courtesy of TOPPR<sup>+</sup>) shows the main features of the alimentary canal. It is essentially a long tube stretching from the mouth to the anus. An interesting fact is that the inside of the tube is outside of the body!

## THE MOUTH

Food is ingested through the mouth. To aid the process, the mouth has teeth: incisors (biting teeth) at the front and molars (crushing teeth) at the back. (We never find any creature which has its biting teeth at the back).

Food is moved around the mouth by the tongue. This process is helped by flexible cheeks. The digestion process begins in the mouth which contains saliva secreted from glands that open into the mouth. Saliva lubricates the food so that it can move freely through

the alimentary tract, and contains three important enzymes:

- **Amylase**, which begins the process of breaking down complex sugars to simpler forms.
- **Lingual Lipase** which assists in the breakdown of fats.
- **Lysozyme** which protects the body from invasive bacteria, viruses, and fungal pathogens; it is also found in tears and mucus.

Masticated food passes from the mouth by swallowing. This is aided by the uvula. There are also two lymph nodes in the pharynx called tonsils. They assist in filtering out harmful bacteria and other pathogens that have entered the body with food. They tend to become infected and are often removed when the infection becomes chronic, without any serious impact on the individual's health.

## THE OESOPHAGUS

Food passes from the Pharynx (Throat) to the stomach via a muscular conduit called the oesophagus. Its function is controlled by an intrinsic nervous system and input from the central nervous system through the Vagus nerve. The passage of food is helped by regular involuntary movement in the oesophageal muscle called peristalsis. A valve called the **lower oesophageal sphincter** is located just before the opening to the stomach. This inhibits the passage of food back to the mouth, but not completely; it is sometimes necessary to regurgitate food from the stomach.

## THE STOMACH

This is an organ with strong muscular walls. It is the main storage organ in the alimentary tract. If we did not have this storage capacity, we would have to eat every twenty minutes or so. The stomach lining releases hydrochloric acid and enzymes that break food down into a liquid paste. The hydrochloric acid also kills bacteria that enter the body with food. There is a valve at the base of the stomach called the **Pyloric Valve** which ensures that food only leaves the stomach at a rate the small intestine can manage it. Fluids take from ten to twenty minutes (plain water) to an hour (milk drinks) to leave the stomach; solid food can take six hours to do so.

## THE SMALL INTESTINE

This portion of the alimentary tract has three parts: the **Duodenum**, the **Jejunum**, and the **Ileum**. Its function is to further digest food coming from the stomach and absorb nutrients (vitamins, minerals, carbohydrates, fats, and proteins) into the blood stream to be used by the body. When food moves into the duodenum, it mixes with digestive juice that enters the small intestine from two sources:

- **The Gall Bladder** produces bile, which is involved in digesting fat.
- **The Pancreas** produces enzymes that help to digest protein. The pancreas also makes the hormone insulin which is involved in controlling blood sugar levels. The ileum is important in absorbing bile acids and Vitamin B12.

The **duodenum** absorbs the elements iron, calcium, magnesium, copper, selenium, the fat-soluble vitamins A, D, E and K and the B vitamins thiamine, riboflavin, niacin, biotin and folate. The duodenum has villi, small finger-like projections which protrude into the canal. They have one-cell thick walls which assist in absorption of nutrients.

The **jejunum** has nerves that trigger its muscular walls to churn up the food and ensure that it is thoroughly mixed with the digestive juices.

The **ileum** absorbs vitamins, minerals, carbohydrates, fats and proteins and water from food for use in the body. At the end of the ileum there is a sphincter which controls the passage of food to the large intestine.

## THE COLON – THE LARGE INTESTINE

The colon continues the process of removing water, nutrients, and electrolytes from partially digested food. The remaining solid waste moves through the colon through peristalsis.

The appendix is a small organ attached to the colon. It is thought to be a reservoir for good bacteria that can recolonize the gut after sickness. It tends to become infected, and many people have their appendix removed with no serious ongoing health problems.

## THE RECTUM

The rectum is a straight, 20cm long, chamber that connects the colon to the anus. The rectum receives stools from the colon, lets us know when it needs to be evacuated, and holds the stool until evacuation is possible.

## THE ANUS

This is a canal consisting of circular pelvic floor muscles and two external sphincters which hold it closed. Glands release fluid into the anus to keep its surface moist. The anus needs to be managed; there are veins in the wall of the anus which may become haemorrhoids if the anus is mismanaged.

## A RATIONAL PROCESS

The alimentary tract is completely logical in arrangement, comprehensive in function and universal in human beings. It has

- A mouth with teeth, a tongue and flexible cheeks which secrete saliva which lubricates the food and contains enzymes that digest carbohydrates and fat and an enzyme that attacks pathogens entering with food.
- An oesophagus connected to a nerve system that induces peristalsis.
- A stomach that stores food, secretes hydrochloric acid and has a valve which monitors the passage of food into the small intestine.
- A small intestine fed with bile and enzymes from the gall bladder and the pancreas, and walls which permit absorption into the blood stream.
- A colon which absorbs water from food waste.
- A rectum and anus which permit the agent to manage waste disposal.

Variations in this arrangement are rare and always disadvantageous. We may do without our tonsils and appendix, but the rest of it is essential. I have a friend who burnt out his salivary glands with exposure to photographic chemicals – he finds it extremely difficult to swallow food.

The odds that all of this could have arisen from random spontaneous mutations are so minute as to be fanciful. The possibility that the tract was designed by a higher being is high.

We return to Lord Kelvin. At the end of his presidential address for the British Association for Science in 1871 Kelvin stated: ‘Overpoweringly strong proofs of intelligent and benevolent design lie all around us and if ever perplexities, whether metaphysical or scientific, turn us away from them for a time, they come back upon us with irresistible force, showing to us our nature, the influence of free will, and teaching us that all living beings depend on an ever-acting Creator.’

One day, Kelvin was walking with the German chemist Justus von Liebig and asked him if he believed that the grass and flowers, they saw around them, grew by mere chemical force. “No” said Liebig, “I believe it no more than I could believe that a book of botany describing them could grow by mere chemical force.” (Light of Truth, 2022).

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# A CASE STUDY OF THE HISTORY AND ECONOMICS OF THE LOGISTICS INDUSTRY

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*This is a summary extract from a paper written for the St Clements Institute Professorial Diplomate program.*

## A Case Study of the History and Economics of the Logistics Industry

### 1.1 Historical background of logistics industry

LI background begins with forest motive of change in antiquity c. 17,000 BC however with bartering due to mental set up slower in evolution into trade and commerce and humans life change attributed to origin and spread rate and centering around Mediterranean region in Ancient- Medieval – Middle – Contemporary, engaging IR with sciences and new technologies developing assembly lines and automation into creating tariffs and WTC and more complex global trade system of digitalization to civilization.

### 1.2 Industry<sup>1</sup>

Implies the economic activity that processes raw materials by transforming products to another form in factories and out of it manufacturing goods to generate money in General business fields work together to generate. Its operations infuses varieties of ‘flows’ in processes of trade and commerce to enable production of goods and in sales earning money, making profits, Engineering (core) logistics or logistics (core) engineering.

**1.2.1 The ‘logistics’ engineering (LE):** the older concept including design, purchasing and procurement.

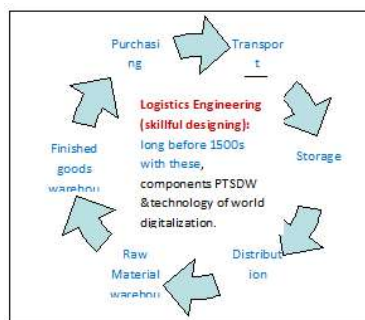


Figure 1: Logistics Engineering

### 1.2.2 ‘Engineering’ logistics (EL)

Engineering logistics– brings up and utilizes processes and procedures of ‘pure’ engineering operations flows; with characteristics and features of CE, ME, EE, CvE, QsE their logistics cut across all fields of competences, development and lives; are abided by ‘flow feature’ LE and EL.

EL adopted new processing methods<sup>2</sup> that beginning mid-1900s to reshape operations and their machinery devices for example in transportation-, construction-, surveying-, hydroelectric electrical power-, electronic-, and manufacturing engineering.

In addition engages professionals such as entrepreneurs, scientists, inventors within different fields; began by transforming e.g. telephones / graphs, stitching sewing machines and in contemporary machinery evolving in this age to digitalization especially during IR1 and IR2.

‘Logistics’ and ‘industry’ approach differ and complements each other to optimize monetary oriented production processes.

### 1.3 History of Engineering

General engineering has operated from antiquity although spottily to medieval operating ‘flows’ of economic activities relating to movements and buildings. In 1700s AD when IR emerged formulated CE, ME, EE, CvE, QsE, as separate fields operating by utilizing ‘flows’ processes featuring LM, SCM, channels, chains and information technologies in their specific fields to enable efficacy and efficient components to achieve required standard performance.

Essentially Logistics engineering (LE)<sup>3</sup> is scientific organizing within industry for processing orders in purchase, transport, storage, distribution and warehousing of materials and goods.

So this is art or science that practically uses sciences such as mathematics, physics, chemistry to construction including steam engines, bridges, buildings, mines and chemical plants. Primarily its

<sup>1</sup> Oxford dictionary

<sup>2</sup> Mit academy of engineering: Then, <https://mitaoe.ac.in>

<sup>3</sup> Logistics engineering  
<https://www.en.m.wikipedia.org/wiki>



fields utilize processes and procedures which are within LM, SCM, chains, channels and their gaps.

Thus EL processes constructions, infrastructures, devices, equipment to machines, transportation rails, roads and bridges utilizing within SCM, channel and information technologies in order to operate such as CE-, ME-, EE-, CvE-, QsE- engineering, emergency and rescuer, operations, medical health and military operation. EL and LE merge in physical operations e.g. physical distribution.

## 1.4 Trade Industry Evolution

Means logistical concepts of buying and selling that evolved ‘spottily ‘ in a specific contextual occurrence, not in a consecutive sequences but their conceptual became evident during 1930s-40s in ‘fragmentation’ or ‘isolated’, built pieces of components of complexity in different fields and in 1960s becoming integrated.

## 1.5 Logistics Industry comprises Logistics fields:

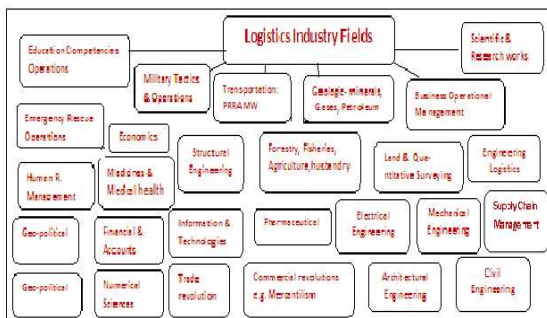


Figure 2: Competencies' fields of the LI

### 1.5.1 Logistics Pillars

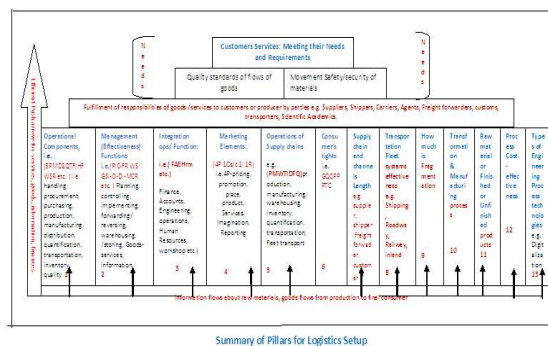


Figure 3: Summary of evolved LI Pillars

### 1.5.2 Main common Features

This includes transportation and inventory management, marketing, product quality as quality for the industry.

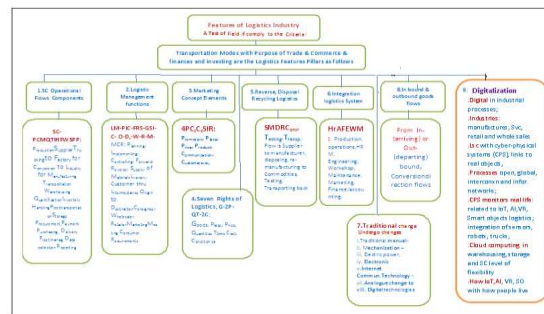


Figure 4: The LI Features

### 1.5.3 Ever Growing Logistics Tree model: LI has been growing

i. Humans began hunting digging roots in forest, shift to settlement, begin family farming for subsistence and surplus, bartering ceramics, tree logs, animals.

Surplus began feudalism system to generate slaves, establishing slave institution, so huge number of slaves kidnapped, or selling children, having markets for selling/ buying; discovering wheel for cartages and wagons to and sea for transportation.

ii. Industry engaged in military by Alexander the great; Romans conquering Europe ruling (27BC-500 AD) and Napoleon 1800s, engaging TR along Mediterranean, CR for China, T&C where city states acquired independent governance and administration turning to city states Empires e.g. Venice.

iii. Emergence of IR was expansion of T & C beginning with Britain and USA and entire Europe beginning manufacturing multitude of goods using new techniques of assembly lines and automation, e.g. water and steam engine power in IR1; IR2 apply hydro-, static electricity power;

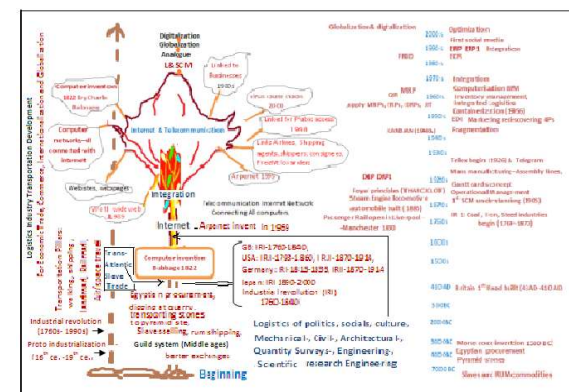


Figure 5: The Ever Growing Logistics Tree Model

IR3 engaging in practical application of IT and computer technologies in industrial manufacturing of goods.

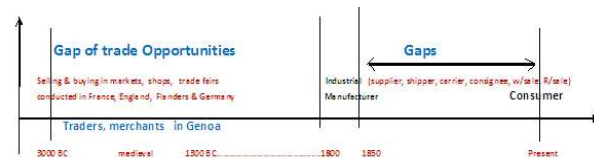
Covering to the present is IR4 utilizing cyber-physical systems in security and safety of homes and industries; and cloud data, Information and IoT in 2011 AD and

while, IR5 linked to previous moves to sustainability and human centeredness, witnessing information of manufacturing ignite (en-fuel) IR.

**1.5.4 During WI, WII the SC evolve and ULD invention facilitating SCM and IM and computer, internet and social media invention, up digitalization.**

**1.5.5 Supply Chain Management, i.e. 'flows'** Represented by PSC MQTWSIHFPDPV components.

**1.5.6.1 Channels or Demand Gaps** began during 1850s during IR, still grows.



**1.5.6.2 Agents have been developed from traders, merchants and slaves kidnapper to multitude (Figure 6)**

Figure 6: Agents responsibilities' multiply

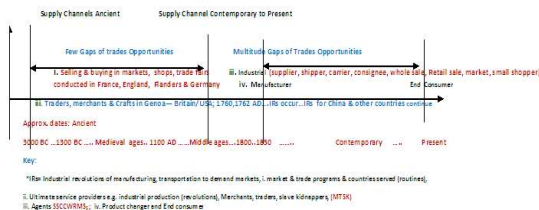


Figure 7: More Agents in 1850-Present, than 1300 BC-1100 AD

**1.5.7 Integration Software(s):** in 1960-1990s computer the MRPI,II; ERPI,II,III; DRPI,II as technological software(s) were installed in computer system to harmonize IM and SCM processes to eliminate fragmentation.

## 1.6 Beginning Logistics Industry

**1.6.1 Antiquity beginning:** In Europe begin in forests, then to Ohalo site, near Galilee settling during 17,000 BC<sup>4</sup> in Eastern Mediterranean region into Aegean sea, and Levant to Phoenicians, quick fairer, sailors, bearing fishing, looting and plundering culture.

**1.6.2 Development and trades:** proceeded differently in continents, e.g. SEA, in Europe Mediterranean sea route East Africa coastline (Zanzibar) facilitated. Later, established trade influencing or forcefully, colonizing the Islands and coastline lands along the sea e.g. Egypt (Alexandria), Greece- Italian.

## 1.6.3 Logistics Booming international trade

The ancient earliest ports and cities formed along Mediterranean sea, where Bronze Age trade began, forming Supply chains clusters A-TMBKKKC, B-UBSTAAT, C-CMAS, D-CKW

Asia also Russia and China generated more slaves advancing farming for higher goods production.

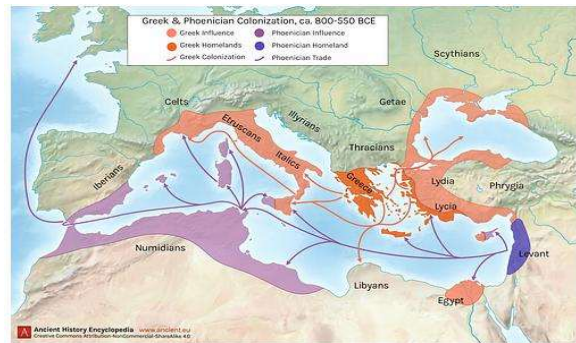


Figure 8: Early trade routes during 800-550 BC of Greeks and Phoenicians

## 1.6.3 Logistics Booming international (Bronze age) trades

Mediterranean regions Trade. The ancient earliest ports formed along Mediterranean sea, where Bronze Age trade began. Supply chains in clusters A-TMBKKKC, B-UBSTAAT, C-CMAS, D-CKW during Uluburun ship wreck, Figure 9.

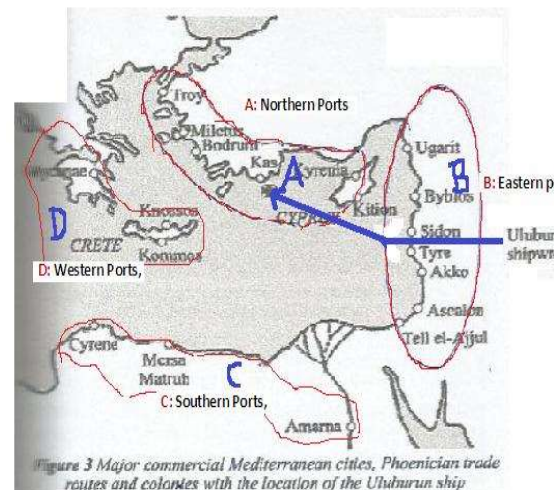


Figure 9: The colonized cities clusters

<sup>4</sup> (<https://www.wikipedia.org>)



**1.6.4 Phoenicians colonize:** warriors and rapid sailors colonized **A, B, C, D** ports along the Sea coastline north, south, west and east directions; trading in commodities demanded and that trade evolved developing colonies, into a Complex network along the sea, Figure 9.

#### 1.6.5 Ancient Looting and Plundering Logistics

i. **Non –abundance to** trade regulations, period, by Romans used military wagons disregarding trade rules plundering, looting, conquering Bulgaria (4700BC)<sup>5</sup> and Dacia (106 AD) for gold and silver.

ii. **Phoenicians** in 3500BC to 300BC<sup>6</sup> and Vikings (800BC-1100 BC)<sup>7</sup> practiced primitive logistics sea faring, raiding and pirating wealth, due to no law or ignored.

#### 1.6.6 Slaves Trade Institution<sup>8</sup>

During 6000 BC-2000 BC slaves were forced to accept slavery fate, later in 3500 BC formed slaves institution 1750 BC passed Mesopotamia Hammurabi's Code, who feudal system created to serve in palaces as concubine, for café comfort service.

#### 1.6.7 Ancient: Trade Development

i. In 800 BC-550 BC, single routes (Figure 10) radiating to islands, Northern and Southern sea ports of Africa and south Europe coast looting, plundering in neighborhood.

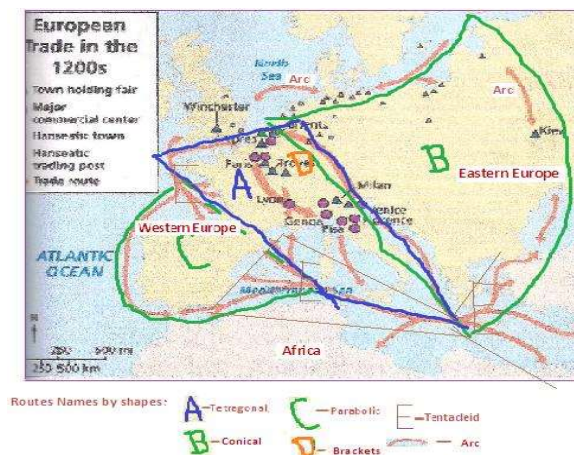


Figure 10: Polygonal Routes Networking 1200 AD

<sup>5</sup> <https://www.quora.com/where-did-medieval-Europes-gold-come-from>

<sup>6</sup> <https://www.nationalgeographic.org>>..

<sup>7</sup> Vikings, <https://www.en.m.wikipedia.org>

<sup>8</sup> <https://en.m.wikipedia.org/wiki>

Later Phoenicians strengthening multiplied trade routes in (700BC) throughout at Sidon, Tyre and Levant to Gibraltar; along northward coastline to Britain, thereafter Celts- Italian to Venice- Greece- into Italo Byzantine on Eastern spreading trade, religion and culture.

#### 1.6.8 Trade Regulations Formulated

In Medieval trade was regulated, exchanging values, trade fairs, demarcating markets, and transportation on street, roads and sea faring.

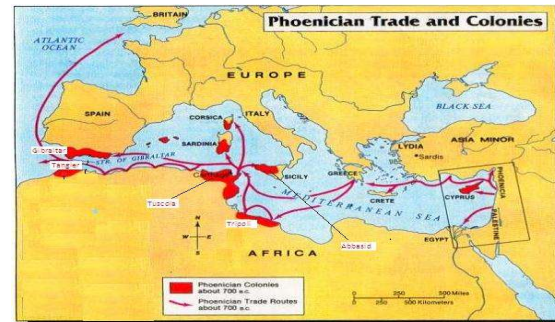


Figure 11: Phoenicians trade and colonization impact 800 BC-500 BC

#### 1.6.9 Ancient: Amber Trade Routes and Roads

i. The Amber route<sup>9</sup> trade began 5400 BC ago with trade spread from Northern East Europe- Baltic Sea, -St. Petersburg into Russia; then southwards to Florence and Venice into Mediterranean region to middle East to Russia Figure 12.

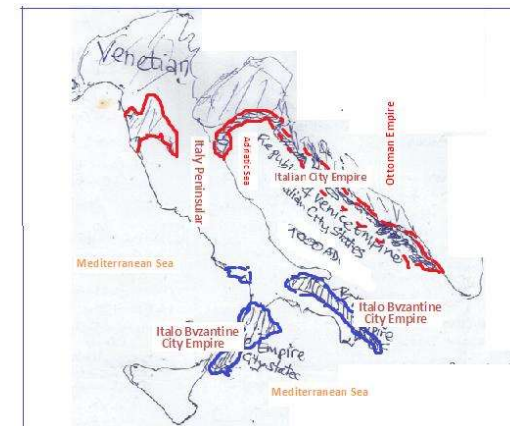


Figure 12: New evolved cities states Empires

<sup>9</sup> <https://www.en.m.wikipedia.org/wiki/history>



### 1.6.10 Medieval: Baltic-Black Sea -Italy Route

- The route began at Baltic Sea region by boats on Dnieper River, through Black Sea to Danube River on land to Italy.
- After TR followed CR transforming cities e.g. Venice to city states empires; then Trans Atlantic Triangle trades assisted with ICIM and with CR entering into IR period was spearheaded by improvising new technologies e.g. steam engine a paths towards civilization.
- Trade and commercial revolutions enabled Cities and countries to becoming empires.

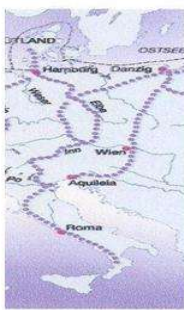


Figure 1: Amber route about 3500 BC.



Figure 1: Contemporary Amber road

Figure 13: Amber Route 3500 BC middle & contemporary

### 1.6.11 Trade Regulations Formulated

In Medieval trade was regulated, exchanging values, trade fairs, demarcating markets, and transportation on street, roads and sea faring.

### 1.7 History of LI in e-Commerce evolution

Traditional commerce began 5000 BC in Sumerian, shows barter trade control records<sup>10</sup>. The process e-commerce is referred in Figure 14.

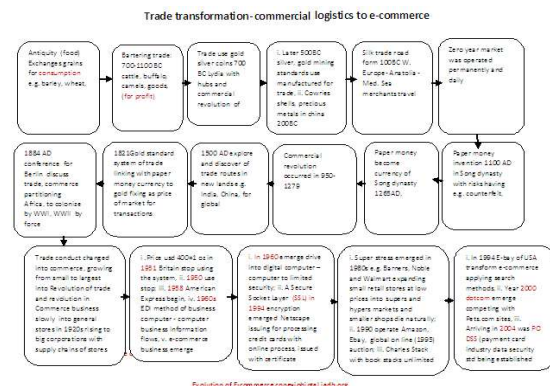


Figure 14: Traditional Commerce Evolve To e-commerce

<sup>10</sup> Management Louis E. Boone and David L. Kultz, 4<sup>th</sup> ed.

Finally the process uses mobile phones and software(s) speeding up communications into apps of 2007 and i-phones into 2008 for ability of 1000 apps downloads, turning up in 2011 exceeding 70% mobile websites in USA of all digital media.

### 1.8 Marketing concept in LI

- Marketing has developed in 7 stages from primitiveness from ancient to present age, (Figure: 15).

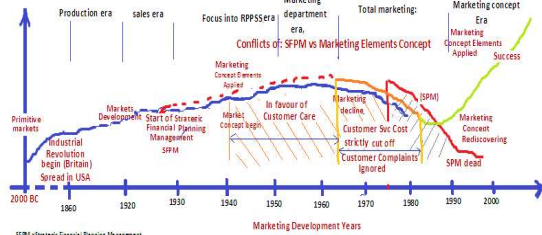


Figure 15: Development of marketing

### 1.9 Historical evolution of SCM

- Warehouses was applied for SC for Mediterranean trade, advanced in operations during WWI, II when ULDs were used, however logistics observed fragmented before 1950 with inadequate performance due to delay in orders, manufacturing and goods delivery.

- Then introduced advanced integrating software MRPs I,II (1970s), ERP MRP II (1980s) and ERP I(1990s) ERP II (2000s), ERP III (2010s), highly quickened improving IM, referred to Figure 18, leading to e-commerce.

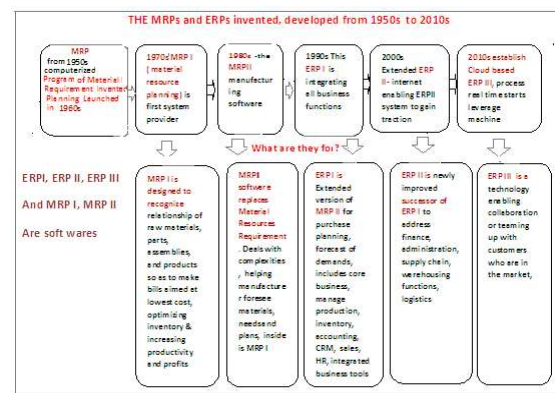


Figure 14: Optimization technologies and MRP and ERPs,

### 1.10 The Match Logistics applied with globalization

- During discovery GDP grew about 5% due to science innovations to Britain and USA, Trans-Atlantic trade, and IR 1500s-1800s.
- G.1, causing growth to 14% due to Britain' IR of 1780 utilizing steam engines.
- G.2 has resulted in 15% growth airlines contribution being greater in factories business in USA.
- G.3 GDP raising to 20% growth in USA due Supply

chain innovations impact flooded goods due to IR.  
e. G.4 due to advancing technologies to digital e.g. IoT, robotics in China.

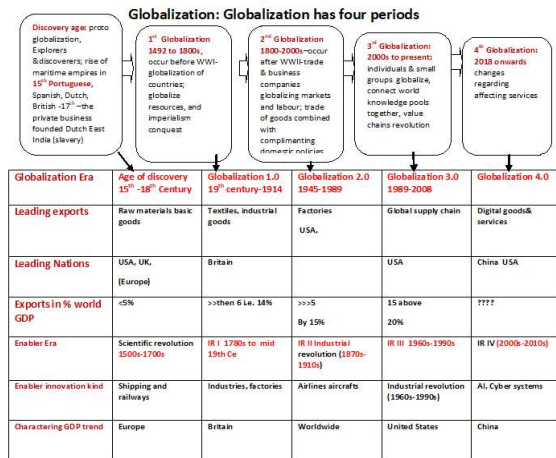


Figure 17: Matching impacts of Logistics and Globalization

### 1.11 Matching IR with globalization

i. The Logistics processes and procedures operated in IR influences signing agreements and contracts due to forceful colonization of new lands and the world, leading to colonizers constructing transportation networks to facilitate transfer of resources to colonizer and enforcing trade due to massively manufactured their goods selling in markets.

ii. The contracts and agreements became difficulty to revoke, hence deeply rooted neo colonization and in economic banking systems and investments.

During IR 1-5 globalization was being achieved through electronics internet communication systems, IOT, AI of digitalization, (Figure15) being of mutual globalization benefits and merits.

### 1.12 Benefits and Merits of Logistics Industry

The LI technologies has ability through macro (transportation) and micro (electronic) of engineering logistics which highly depend and influential to processes in government, private companies, institution, for monetary generation in local, regional, international and global entities' fields.

Integrates with all Fields through software(s) to collaborate with HR, finance, workshops, maintenance hangars with transformation and manufacturing companies as follows:

i. Processes are of art by nature relying on engineering embraced such as sciences programmes, scientific and new technologies such as IoT, AI and 3D printing.

ii. Provides opportunities to processes, discharge business for productive earning.

iii. It enables major and key operations germinate and flow, products, sales and money.

vi. Maintains the pillars in specialized field, logistics of movement/ transportation, chains and channels flows to ensure operations run effectively.

v. Utilizes quality standards of measurements, processes, flow charts and contracts ensures meet consumers requirements.

vi. Utilizes MRP I, II the DRP I, II and ERP I, II, III to meet on-time supply, transformation or manufacturing of raw materials, and deliveries of products.

vii. Enables products or goods generation and sales from primary industries such as agrarian, mining, agriculture, fishing and forestry to achieve civilization.

### Conclusion

Indeed the CMECQ collaborating with LM SCM, channels and T & C technologies, have extraordinarily optimized LI from primitive state enabling great strides of achievements in marketing and strategic plans achieving required sales through digitalization into globalization.

### Acronyms

**CMECQ:** CE, ME, EE, CvE, QsE being Chemical-, Mechanical-, Electrical-, Civil -, Quantity Survey Engineering.

**ICIM:** influencing, colonization, imperialism, mercantilism.

**IM:** Inventory management.

**IR1-IR5:** industrial revolution stage 1, 2, 3, 4, and 5.

**LM-PMQTIHFWSP(PIF-QT-DR<sup>11</sup>):** Logistics process Production, Supplying, Conversion, Manufacturing, Quantification, Transportation, Warehousing, Storage, Inventory, Handling equipment- Supplying, Fleets, Procurement, Purchasing, Delivery and verification.

**LM: PIC-FRS-GSI-C-DMCR<sup>12</sup>,** management function component responsibilities.

**LI:** Logistics industry.

**4PISvc:** Marketing elements e.g. Promotion, place, production, prices customer services and information provision and Sensitivity to customer, Conveniences.

<sup>11</sup> Image: [www.smithsonianmag.com>archive](http://www.smithsonianmag.com/archive), Allen Jones a lost slave

<sup>12</sup> [www.dogonews.com>ancient-ship](http://www.dogonews.com>ancient-ship); Governmental Intervention In Foreign Trade Archaic;

**TR, IR, CR, R/R, T&C:** Trade revolution, Industrial Revolutions, Commercial revolutions Railroad/Road, Trade and commerce.

**WI, WII:** World War I and II.

### Vital Definitions

**LM:** -PMQTIHFWSP (PIF-QT-DR) is that part of SCM that plans, implements and controls the efficient, effective forward and reverse flow and storage of goods, services and related information between point of origin and point of consumption in order to meet customer's requirement; and.. integrates activities with ....marketing, sales manufacturing, finance and information technology (CSCMP, 2011)<sup>13</sup>.

**SCM:** networking system of companies and customers; Design<sup>14</sup>, Planning, Execution, Control and monitoring of supply chain with objective of creating value, building a competitive infrastructure, leveraging (influencing) worldwide logistics, synchronizing supply with demands and measuring performance globally.

**Logistics engineering (LE)**<sup>15</sup> a scientific organizing within industry for processing orders in purchase, transport, storage, distribution and warehousing of materials and goods.

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<sup>13</sup> Source: USAID Deliver Project, The Logistics Handbook, A practical guide for SCM of health commodities.

<sup>14</sup> Source: USAID Deliver Project, The Logistics Handbook, A practical guide for SCM of health commodities.

<sup>15</sup> Logistics engineering  
<https://www.en.m.wikipedia.org/wiki>

# FINANCING THE ENERGY DEFICIT USING GLOBAL DEPOSITORY RECEIPTS (GDRS): A CASE STUDY OF ZAMBIA

Dr Jackie Chibulika Chiwele and Professor Dr Abubaker Qutieshat\*

## Abstract

This article is presented for academic purpose by the author to explore the challenges of energy deficit in particular electricity generation and supply short-falls faced by developing and poor nations, a case study of Zambia which is among the SADC member countries considered a poor nation despite being endowed with huge water bodies, various minerals such as copper including cobalt, sugilite, manganese, Lithium, gold and uranium just to mention a few. Further, the author presents in this study paper the solution of tackling this problem of energy deficit more especially in a case of Zambia through the introduction of the Zambian Depository Receipt (ZDR) as a Financing Instrument (FI) and a Special Purpose Vehicle (SPV) from the issuance entity point of view and as an Investment Instrument (II) from the investors' perspective.

The purpose of this study paper is to gain an understanding of the major issues of energy deficits faced by Zambia and provide a possible solution through a Global Depository Receipts (GDRs) that can be used as an SPV to provide funding for investment in the energy sector with a view of easing the problem of generating energy and high demand in electricity consumption both for domestic and industry use.

The approach used included review of literature on published articles, reports on energy generation and distributions, texts on financial instruments, and other related information about the narratives of energy generation and supply, in particular electricity.

Further, the findings led to propose possible solutions to alleviate this philosophy of energy deficit through introduction of an SPV called the Zambian Depository Receipt (ZDR) that the government can issue through international financial intermediaries across the globe to raise the needed capital investments for the energy sector. Further, the finding also points out to control climate change which can help sustain energy generation and supply of electricity since Zambia highly depend on hydro-power generation which is mostly driven by rainfall that is adversely impacted on by climate change situations.

**Keywords:** *Energy deficit, Global Depository receipts, Zambia Depository Receipts (ZDRs), Special purpose vehicle, Hydro-electric power...*

## Introduction

Several countries more especially those in the developing world and poor nations are still grappling with the issues of huge deficit in the energy output to enhance and power industries in their respective countries. For example, in a case of Zambia the energy sector fails to generate and supply sufficient energy in terms of electricity to meet the demand of its growing citizenry, various industries including the mining industry as we may all know that Zambia is one of the largest producers of copper, cobalt, manganese including now the discovery of new minerals such as sugilite, Lithium which will soon add to the list of energy demand.

From my understanding and perhaps the views of other proponents in the economics of energy generation and supply, the main reasons why Zambia fails to increase energy generation output and meet the deficit in energy supply include:

- Dearth of resources to open up other hydro-electric power stations since the country has competitive advantage of being endowed with mass water bodies capable of being converted into adequate energy production facilities, which can meet the demand of its ever growing population and also power various industries in the country more especial the mining sector that is expanding following the development of new mining sites in different parts of the country like in the North Western province and other provinces such as Luapula province, Central province where huge production of manganese and other metals are being mined.
- Lack of technologies to transition from hydro-electric power generation to other sources of energy production such as uranium enrichment for energy purposes, solarisation system, renewable energy, etc.
- Inadequate human resource capacity in terms of expertise to invest in renewable energy.
- Lack of resources to invest in solarisation as clean source of energy under the green environment, and other reasons just to mention a few.

Apparently, this situation seems to be generic to most developing and poor countries more especially in Africa and the Sub-Saharan Africa whose economic conditions and status cannot help such countries to raise enough resources to invest in the energy sector.

Ngoma et al (2018) observed that, in Zambia a growing population base and expanding economy, primarily driven by the energy-hungry copper mines have increased the demand of electricity by 3.3 percent per year. Additionally, failure to diversify the energy generation sources mix has led to energy shortage which is partially due to under-investment in electricity infrastructure including lack of power plants.

The question is what is the status of energy deficit in Zambia? In case of Zambia some proponents in the energy sector asserts that the country had nearly 3,000 MW of energy installed capacity in 2018 most of which is generated from hydro. Peak electricity demand in the same year amounted to about 650 MW less than that. Available capacity however has been decreasing since 2019 and 2020 which resulted in a supply deficit of more than 810 MW.

It is important to note that most of the affected countries in the SADC region including Zambia have often relied on borrowed funds from cooperating partners more especially international financial institutions like the IMF, the World Bank, and other financial credit suppliers locally and globally to invest in the increase of energy generation.

The purpose of this study paper is to explore the use of alternative financing model like the Global Depository Receipts (GDRs) which can be considered as a Special Purpose Vehicle (SPV) and used to raise funds for the energy sector investment with the object of reducing or completely eliminating the deficit in the energy output status in Zambia. The GDR as an investment instrument on the part of the investor can specifically be marketed by the country to invite Zambians in the diaspora to invest in the energy sector through issuance of this SPV via an international bank called a depository wherever Zambians are in the diaspora across the globe who can buy shares in a utility company such as in the Zambia Electricity Supply Corporation (ZESC) or Copperbelt Energy Corporation (CEC) and any other entity generating and supplying power in Zambia.

Thus, the introduction of what I would call the Zambian Depository Receipts (ZDRs) can assist the country to raise funds through the international financial intermediaries called the depository at low cost since the payment of dividends to investors in this case Zambians away from home would usually be paid in the local currency (Zambian Kwacha) which is advantageous to the issuing entity.

### **Theoretical Framework and Literature Review**

Zambia has various frameworks in the development and increase of energy in terms of sustainable electricity generation and supply against the current

demand despite the challenges of climate change which has also affected the country more especially that most of its energy is produced through hydro-electric power generation systems and with the dwindling of water levels in most of the water bodies like the Kariba dam, Kafue gorge dam and many other facilities as a result of draught, this has resulted in a huge deficit of power generation and supply across the country.

Due to climate change effects which has caused drought to most countries in the SDAC region, water which is used to produce electricity through hydro power generation facilities has seriously affected the energy generation capacity in Zambia due to low water levels in major dams. It is also imperative to note that water accessibility is another class of threats posed by the interaction of a rising demand for resources in the face of a finite supply and water is considered as a particular interesting example because it is so vital to life, observed Tietenberg and Lewis (2018).

Further, from the water and hydro economic perspectives it is important to question how water is differently utilised not only for consumption at domestic level but energy generation since most of the environmental economists only talk about the way water is utilised by various stakeholders. Therefore, regulating water usage between human consumption and power generation application may harmonise usage and help control the reduction in the water bodies' levels. Barry and Martha (2013) stated that what kinds of regulations should govern the reallocation of water, for example, between energy generation, agricultural activities for irrigation and consumption more especially to the urban users.

Conceptually, the government of the Republic of Zambia established the plans to increase energy output in terms of electrification of urban and rural areas through the Rural Electrification Master Plan (REMP) and the Strategic Vision 2030 Goals. The Vision: 2030 Goal has a targeted increase of urban electrification from 48 percent to 90 percent, and rural electrification from 3.1 percent to 50 percent. Further, the 2013 Renewable Readiness Assessment showed that Zambia has been challenged by low rates of electrification -45 percent in urban areas and only 3 percent in rural areas. According to the Zambia Electricity Supply Corporation (ZESCO), the country currently suffers from power deficits and must undertake load management to match supply and demand, stated Downs, T. J. et al (2020).

Practically, the country has been experiencing a serious short-fall in the adequacy of energy generation and supply in terms of electricity for all usage. For example, in 2015 unparalleled energy crisis was experienced due to depleted energy stocks in the hydro-electric dams and reduced river flow in the Kafue and Zambezi river basin and the Northern water circuit. In the past, the energy profile of Zambia showed serious imbalance due to over dependence on one single source of primary energy (Hydro-power), observed Kaela and Percy (2018).



In Zambia energy sources include renewable sources such as: Water, solar, wind and biomass as well as fossil fuels like petroleum. Given substantial unexploited reserves of renewable sources the country has potential to be self-sufficient in energy, with the exception of petroleum that is wholly imported into Zambia, Stated Mukumba and Mukuka (2016).

To appreciate the country's energy generation capacity, I statistically present this in the following table and the paragraph below:

**Table: 1, 2018- Installed Generation Capacity in Zambia:**

No.	Power Station	Capacity	Type of Generation	Operator
1	Kafue Gorge	990	Hydro	ZESCO
2	Kariba North Bank	1080	Hydro	ZESCO
3	Victoria falls	108	Hydro	ZESCO
4	Lusemfwa-Mulungushi	56	Hydro	Lusemfwa Hydro Corp.
5	Small hydro combined	25	Hydro	ZESCO
6	Isolated Generations	8	Diesel	ZESCO
7	Gas Turbines (Stand by)	80	Diesel	Copperbelt Energy Corp.
	Total	2177		

(Source: CUTS International)

However, with the construction and commissioning of KGL power project, Energy Regulatory Board (ERB) report (2022) indicated that the national installed electricity capacity increased to 3,777.3 MW in 2022 from 3,318.4 MW in 2021. From the total electricity generation installed capacity of 3,777.3 MW, 5.5 MW was attributed to mini grid and 3,771.8 MW is on-grid generation capacity which also includes Copperbelt Energy Corporations (CECs) standby emergency generators with combined capacity of 80 MW. It is important to note that Zambia's national installed capacity continued to be dominated by hydro generation accounting for 83.8 percent while thermal was at 8.7 percent, HFO at 2.9 percent, solar at 2.4 percent and diesel at 2.2 percent.

To avoid possible repeat of the energy deficit, government of the Republic of Zambia has been exploring alternative sources of energy including solarisation system and possible use of uranium once capacity is built since the policy on the mining and processing of uranium by Bio Safety Authority is already developed but awaiting implementation and actualisation.

Implications of energy deficit in terms of electricity generation and supply to enhance increased production of goods and services in Zambia has been a thorn to manufacturing companies including Micro, Small and

Medium Enterprises (MSMEs) who depends on ZESCO for electricity supply. The Zambia Chamber of Commerce and Industry (ZCCI) urged the government to address the problem of power deficit resulting in load shedding by engaging the private sector who are offering fiscal and non-fiscal measures to help unlock investment in alternative sources of electricity. Kawesha (2022) stated that the private sector is key to addressing any power deficit and enhancement of energy security, adding that there is need to give the Independent Power Producers (IPPs) and bankable credits worthy Power Purchasing Agreements (PPAs).

From some human resource proponent's perspective, there is a concern that the country has also experienced low levels of productivity in terms of human resource performance as they are kept for long hours without working due to lack of adequate power supply to most manufacturing facilities across the country.

Further, from the health sector point of view there are also concerned that health service delivery has been seriously impacted on and most of the health facilities across the country have become the most highly affected areas because of the impact of energy deficit more especially in peri-urban health centres and rural health posts across the country who are experiencing challenges to store vaccines, performing surgery and provide other health services due to dearth of electricity supply. Statistically, 3,000 health facilities across the country only 2,000 are connected to the main electricity grid and the 262 are marked for support under Health Facilities Solarisation Project (HFSP) funded by GAVI, UNICEF, government and other cooperating partners to supply these health facilities with solarised refrigerators. Under this project health facilities were identified to be installed with solar energy facilities which will be connected to power solar fridges to safely store vaccines and medicines at recommended and regulated temperatures.

The objective of this project is to contribute to closing up the gap in the energy deficit as it has adversely also affected the health facilities and other sectors in terms of productivity.

Therefore, Zambia needs sustainable and adequate various sources of energy instead of depending on hydro electricity generation alone as this has become vulnerable due to climate change effects that has resulted in drought impacting on the already low levels in rainfall status that is failing to increase enough water levels in major water bodies in the country such as the Kariba dam, Kafue Gorge and many other mini-hydro power stations across the country.

In an effort to find a solution to the problem of energy deficit, the Government resolved to implement a temporary short-term measure like importing electricity at high costs. For example, the Minister of Information and Media Mweetwa (March 19, 2024), stated that Zambia will import 150MW at a cost of \$882m for the next 15 months to cushion the power deficit in the country. This follows the decision by

ZESCO to impose an eight-hour load management schedule countrywide resulting from low power generations mostly being implemented during the day.

General cost implications on energy deficit is real and affecting the growth of manufacturing industry in Zambia. Thus, it is important to note that the situation of energy deficit is true and affecting various other sectors like increasing the cost of production of goods and services including increased cost of living to society as most of the citizenry in the country are forced to spend their savings on other alternative sources of energy at increased cost. For example, due to draught in Zambia this has caused low level of water in major water bodies that are used for hydro power generation of electricity supply.

Further, most large companies in the manufacturing industry have ended up procuring industrial power generators at high costs to power their plants as a way of sustaining production bearing also the high price of consumables such as fuels and oils to run these standby generators. On the other hand, Micro, Small Enterprises (MSMEs) that have not managed to procure standby generators to sustain their production has ended up closing their small businesses and disinvested from business undertaking that require use of energy and some of them have completely spin-off out of their businesses which is certainly going to have an effect on the country's social and economic development.

Mbuzi, (March 23, 2024) observed that small businesses are the hardest hit by power outages as he expresses concern that over the implications of the recent power outages on small businesses. In an interview with Millennium TV, Mr Mbuzi said if load shedding continues it could lead to job losses for employees because businesses cannot afford to retain non-productive staff. In my view, this is due to energy crisis as a result of inadequate power generation capacity because of the low levels of hydro-power generation capacity which are mostly affected by poor rainfall pattern over the years.

As evidently presented in the literature review section of this article, the importance of energy generation and supply is a key factor in any country's developmental agenda and its prosperity in terms of social and economic development. It is also important to note that both business enterprises and society at large depends on energy for survival more especially electricity supply which is used for various purpose across the country in a case of Zambia.

The energy deficit, in a case of electricity is a generic problem that is not only affecting Zambia but other developing countries more especially those countries in the SADC region including South Africa that also experience similar situation of electricity short falls and the that country manage this challenge through their load management which is segmented in the following ways: Stage 1 - one hour load shedding, stage 2 two-hours load shedding, stage 3- three hours

load shedding, stage 4- four hours load shedding, stage 5 five hours shedding, stage 6- six hours shedding, stage 7 seven hours shedding, and stage 8- eight hours loading shedding.

Whereas, Zimbabwe a neighbouring country to Zambia on the Southern part of the country shares the Kariba hydro-power electricity generating facility in particular the Kariba dam which is often affected by water flow levels in the Zambezi River due to draught face a similar challenge of electricity generation and supply. To easy this problem and sustain energy generation and supply, the two countries regulate the harvest level of water from the Zambezi River through an institution called the Zambezi River Authority (ZRA).

The Zambia River Authority (ZRA) responsibility is to operate and maintain infrastructure on the Zambezi River which is commonly used by both Zambia and Zimbabwe, investigation on the usage of water and development of new dam sites along the river, collecting, processing, analysing and disseminating hydrological and environmental information. For example, Magombo (2022), reported that water allocation and utilisation for power generation at the Kariba dam is an issue of concern as regarding failure by the Power Utilities to adhere to their power generation plans as seen that by the end of the year both Power Utilities had exceeded their utilities; with the Zimbabwe Power Company having utilised significantly more than the amount of water allocated.

Hence, the purpose of this article is to explore the Global Depository Receipt (GDR) as a financing instrument considered as a cheaper source of financing that can be used to raise funds and invest in the energy sector for Zambia. This financial Instrument (FI) can be customised and be named as the 'Zambian Depository Receipt (ZDR)' and issued through the international financial intermediaries via an international bank where Zambians living and working in the diasporas can buy shares for the purpose of investing in the energy sector back home.

Further, to address this challenge of energy crisis serious investment is needed if developing and poor countries including Zambia will record any meaningful social and economic development and improve the standard of living for their people, more especially countries in Africa and the Sub-Saharan Africa and in particular the SADC member countries which are also facing the energy deficit impact.

In my view and perhaps with views of other proponents in the field of energy economics, the only solution is to increase energy generation through various sources other than depending on hydro-electric power generation that depends much on rainfall. This can only be achieved through investing in the energy sector using Global Depository Receipts (GDRs) and Zambia can customise this instrument and name it as "*the Zambian Depository Receipts (ZDRs)*," similar to the American Depository Receipts (ADRs) or Indian Depository Receipts (IDRs).

The only question that begs answers now is what is a Global Depository Receipt (GDR), then? A GDR is a negotiable financial instrument representing shares in a foreign company. It is usually denominated in US dollars (US\$) that represents shares issued in a local currency by a country through a company trying to raise funds for investing in any particular sector like energy, agriculture, irrigation industry, etc. In a case of Zambia, this type of SPV can be issued through a utility company like ZESCO who can issue shares in the name of an international bank, called a depository located in a foreign country such as the UK, USA, and other countries in the developed economies. For example, Zambian Depository Receipts (ZDRs) can be a method of inviting Zambians investors to subscribe to shares issue of a domestic company, in this case ZESCO or Copperbelt Energy Corporation (CEC).

From the International Accounting Standards (IAS) perspective, GDRs are described as certificates issued by a depository bank which purchases foreign company shares, deposits them in the account and are commonly used to raise capital from international investors who could be Zambians living and working in the diasporas through public stock offerings or private placement (<https://cleartax.investmentstocks>).

The ZDR physical possession of the shares can remain with a custodian in the country of the issuing company, for example ZESCO and the shares can be issued in the local currency based on the shares held on its behalf by a custodian of the depository issues ZDR in this case to investors in US dollars. ZDR can be designed in such a way that it possesses the characteristics of the bearer instruments, traded freely in the international markets, either through stock exchange mechanism or on 'over the counter' basis. The payment settlement can be made through some international clearing system like EUROCLEAR (Brussels) or CEDEL (London).

Sharma (2011) stated that the issuing company pays dividend on shares under GDRs to the depository after deducting withholding tax, in local currency and the depository converts the dividend received into US dollars at the ruling exchange rate and distributes it among the GDR holders.

In this case, the ZDRs once issued through a company like Zambia Electricity Supply Corporation (ZESCO) the dividend could be paid in Zambian Kwacha to the depository which is an international bank who converts from Kwacha to US dollar at a ruling exchange rate and pay the ZDRs holders who ideally could be Zambians investors living and working in the diasporas. It is important to note that the ZDRs is a security that can also be issued by a company incorporated abroad to Zambian investors, granting them exposure to a foreign asset typically an equity share which can be traded on the Zambian stock exchange market in the Zambian Kwacha.

Therefore, exploring and initiating a ZDRs by the Zambian government through energy utility companies like ZESCO, Copperbelt Energy Corporation (CEC)

and other companies involved in energy generation in terms of electricity can help solve the problem of energy deficit in the country as the funds raised through issuance of such shares can specifically be applied on energy infrastructure improvements and building new sources of energy facilities. The GDRs have advantages and disadvantages including the pros and cons which encourages and discourages potential investors. For example, Hayes (2013) observed that some of the pros and cons of the GDRs include:

- Pros- easy to track and trade, denominated in the local currency, rregulated by local exchanges, offers international portfolio diversification.
- Cons- more complex taxation, limited selection of companies offering GDRs, iinvestors exposed indirectly to currency and geopolitical risk, potential lack of liquidity.

### Methodology

The methodology used to author this article was mostly from secondary data obtained through review of literature on published articles in major research journals, reports on energy generation and distribution, texts on financial instruments, and other related information about the narratives of energy generation and supply in particular reports by the Energy Regulatory Board (ERB) on electricity deficit.

### Findings

The finding is highly indicative that energy deficit is real in Zambia and affecting production of goods and services and it is impending on the society's wellbeing as the populous of the country struggle to make a living through small businesses that rely on electricity. Further, health service facilities that depend on electricity to deliver health services are also affected resulting in failure to save people's lives across the country.

The Government has also been effective in trying to cushion the energy deficits through intentions of importing 150 MW to cover the 15 months that the country will experience the 8 hours per day load management. In addition, literature also suggest that introduction of Global Depository Receipt (GDR) like ZDR as an SPV instrument can help the country to raise funds for investment in the energy sector that could reduce the level of the current energy deficit that is causing a crisis.

### Recommendations

In this article, I base my recommendations on two aspects anchored on the literature presented in this study paper. Firstly, the problem of energy deficit is caused by adverse natural conditions due to climate change which has seen low levels of water in major water bodies in the country including the Kariba dam, resulting in low energy generation because of drought.



Therefore, to overcome this problem the country should explore other sources of energy such as solarisation systems, uranium fusing for energy production, renewable energy instead of depending on hydro-electric power generation while the government continue to make efforts to control environmental degradation and control affluent and other externalities that are discharged into the environment causing climate change.

Secondly, the initiative of introducing the Zambian Depository Receipts (ZDRs) to invite Zambians living and working in the diasporas to invest in the energy sector more especially in electricity generation and supply through this SPV of issuance of shares abroad would greatly facilitate raising of funds to invest in the energy sector.

Successful subscribing to this financial instrument would help the government through the utility companies to improve energy generation infrastructure and invest in alternative sources. I have no doubt that if this initiative is given a thought it would go a long way in addressing the challenge of energy deficit in Zambia.

### Conclusion

In conclusion, it is a fact that developing countries including Zambia are facing serious energy deficit which has resulted in a crisis and most countries have resorted to implement load management. In a case of Zambia, the 8 hours load shedding is not only affecting businesses and manufacturing industry but society at domestic level.

Further, measures to reduce climate change effects must also be considered by employing good practices of operations by all stakeholders more especially companies that produce and emit externalities into the atmosphere, forest degradation and many other practices that are associated with affecting the environment must be controlled through a national policy that would regulate usage of natural resources.

Finally, the solution to correct this challenge of energy deficit is to: manage the environment in a more responsible way so that climate change does not affect the much-needed rainfall that is depended on by hydro-electric power generation. Further, government through utility companies can raise enough funds through the Global Depository Receipts (GDRs) which can be customised and named as the Zambian Depository Receipts (ZDR) to invest in facilities that would increase the capacity to produce more energy in terms of electricity including exploring and investing in other alternative sources of energy.

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### On-line Resources:

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# THE ROLE OF ENERGY IN TURKEY-AZERBAIJAN RELATIONS

Can Volkan Dokmeci\*

Energy plays a significant role in shaping the bilateral relations between Turkey and Azerbaijan, influencing their economic, political, and strategic interests. The energy partnership between the two countries has evolved over the years, with a focus on the development, transportation, and trade of oil and natural gas resources. This essay explores the complexities of energy cooperation between Turkey and Azerbaijan and its impact on their relations.

## Historical Background

The energy cooperation between Turkey and Azerbaijan can be traced back to the early 1990s when Azerbaijan gained independence following the collapse of the Soviet Union. Azerbaijan, with its vast oil and gas reserves in the Caspian Sea, sought to develop these resources and find international partners to assist in their exploitation. Turkey, strategically located between Europe and Asia, emerged as a key partner for Azerbaijan due to its geographic proximity and access to European markets.

The Baku-Tbilisi-Ceyhan (BTC) oil pipeline, inaugurated in 2006, marked a significant milestone in the energy cooperation between Turkey and Azerbaijan. The pipeline, stretching over 1,700 kilometers, allowed Azerbaijani oil to be transported from the Caspian Sea to the Mediterranean Sea via Georgia and Turkey, bypassing Russia and providing a new route for Caspian energy exports to reach global markets. The successful completion of the BTC pipeline strengthened the energy partnership between Turkey and Azerbaijan and paved the way for further collaboration in the sector.

## Energy Resources and Projects

Azerbaijan is a major producer of oil and gas, with significant reserves in the Caspian Sea, including the Azeri-Chirag-Guneshli (ACG) oil field and the Shah Deniz gas field. These resources have played a crucial role in shaping the energy landscape of the region and attracting international investment for their development. Turkey, on the other hand, relies heavily on energy imports to meet its growing demand, making it a strategic partner for Azerbaijan to export its energy resources.

The Southern Gas Corridor (SGC) is one of the most significant energy projects between Turkey and Azerbaijan, aimed at diversifying Europe's energy sources and reducing its dependence on Russian gas. The SGC consists of several interconnected pipelines, including the Trans Anatolian Pipeline (TANAP) and

the Trans Adriatic Pipeline (TAP), which transport natural gas from the Shah Deniz field in Azerbaijan to European markets. The completion of the SGC has strengthened the energy security of both Turkey and Azerbaijan while enhancing their strategic importance in the region.

## Political and Strategic Implications

Energy cooperation between Turkey and Azerbaijan has broader political and strategic implications beyond the economic benefits. The two countries share common interests in promoting stability and security in the South Caucasus and the wider region, and energy cooperation serves as a platform for advancing their mutual goals. The strategic partnership between Turkey and Azerbaijan has led to closer diplomatic ties and collaboration on various regional issues, including security, counterterrorism, and infrastructure development.

The energy partnership between Turkey and Azerbaijan also contributes to the diversification of energy routes and enhances energy security for both countries. By reducing their dependence on a single source or transit route, Turkey and Azerbaijan can better withstand potential disruptions in the global energy market and ensure a reliable supply of energy for their domestic consumption and export needs. This strategic imperative drives their continued cooperation in the development and transportation of energy resources.

## Challenges and Opportunities

Despite the success of energy cooperation between Turkey and Azerbaijan, there are challenges and opportunities that both countries must navigate to sustain their partnership in the long term. One of the challenges is the geopolitical competition in the region, particularly the influence of Russia and other external actors on the energy market. Turkey and Azerbaijan must balance their strategic interests with the need to maintain good relations with their neighbors and international partners to ensure the stability of the energy sector.

Another challenge is the diversification of energy sources and the integration of renewable energy into the energy mix of both countries. As the global demand for clean and sustainable energy grows, Turkey and Azerbaijan will need to invest in renewable energy projects and infrastructure to reduce their dependency on fossil fuels and mitigate the environmental impact of energy production. This shift towards a greener

energy future presents opportunities for innovation and collaboration between Turkey and Azerbaijan in the renewable energy sector.

The role of energy in Turkey-Azerbaijan relations is multifaceted, encompassing economic, political, and strategic dimensions. The energy partnership between the two countries has evolved over the years, driven by their shared interests in developing, transporting, and trading oil and natural gas resources. The completion of key energy projects, such as the BTC pipeline and the SGC, has strengthened the ties between Turkey and Azerbaijan and enhanced their energy security and geopolitical influence in the region.

Looking ahead, Turkey and Azerbaijan must continue to collaborate on diversifying energy sources, promoting renewable energy, and addressing the challenges of the evolving energy market. By harnessing their complementary strengths and strategic objectives, Turkey and Azerbaijan can further solidify their energy partnership and enhance their mutual prosperity and security in the years to come.

It is essential for Turkey and Azerbaijan to capitalize on the opportunities presented by the evolving energy landscape, such as increasing investments in renewable energy, enhancing energy efficiency, and exploring new technologies for sustainable energy production. By embracing these opportunities, both countries can reduce their carbon footprint, contribute to global efforts to combat climate change, and create new avenues for economic growth and innovation.

Furthermore, as the energy sector continues to evolve, Turkey and Azerbaijan should also focus on enhancing regional cooperation and strengthening energy connectivity with neighboring countries. By expanding energy infrastructure, increasing cross-border energy trade, and collaborating on energy security initiatives, both countries can foster greater stability and prosperity in the region. This could involve exploring new energy projects, such as electricity interconnections, energy storage facilities, and joint energy ventures, to further diversify energy sources and enhance regional energy cooperation.

In conclusion, energy cooperation between Turkey and Azerbaijan is a dynamic and strategic partnership that has expanded over the years, contributing to the economic development and security of both countries. By navigating the challenges and seizing the opportunities in the energy sector, Turkey and Azerbaijan can build on their successful collaboration, reinforce their mutual interests, and play a leading role in shaping the future of the energy landscape in the region. Together, they can leverage their strengths, capitalize on their shared vision for sustainable energy, and forge a resilient and prosperous energy partnership that benefits both nations and the wider region.

Certainly, let's delve deeper into the potential areas of cooperation and collaboration between Turkey and Azerbaijan in the energy sector moving forward.

1. **Renewable Energy Development:** Both Turkey and Azerbaijan have started to focus on renewable energy sources to diversify their energy mix and reduce their carbon footprint. Collaborating on renewable energy projects, such as solar, wind, and hydropower, can not only enhance their sustainability goals but also create new opportunities for technological innovation and investment in the green energy sector. Sharing expertise, best practices, and research in renewable energy development can accelerate the transition to a more sustainable and environmentally friendly energy system.
2. **Energy Efficiency Initiatives:** Improving energy efficiency in buildings, industries, and transportation sectors is crucial for reducing energy consumption and greenhouse gas emissions. Turkey and Azerbaijan can collaborate on programs and policies to promote energy efficiency, such as energy audits, energy-efficient building standards, and incentives for energy-saving technologies. By working together to enhance energy efficiency practices, both countries can lower energy costs, increase energy security, and contribute to a cleaner and more sustainable energy future.
3. **Energy Trading and Market Integration:** Strengthening energy trading and market integration between Turkey and Azerbaijan can enhance energy security, promote competition, and optimize energy supply chains. Developing interconnection infrastructure, harmonizing energy regulations, and fostering cross-border energy trading can create a more resilient and flexible energy market in the region. By streamlining energy flows and facilitating energy exchanges, Turkey and Azerbaijan can benefit from enhanced energy diversification, improved market liquidity, and increased energy access for consumers.
4. **Research and Development Collaboration:** Investing in research and development (R&D) in the energy sector can drive technological innovation, enhance energy efficiency, and unlock new opportunities for sustainable energy production. Turkey and Azerbaijan can establish joint R&D initiatives, technology transfer programs, and innovation clusters to advance energy research and development in areas such as smart grids, energy storage, and renewable energy technologies. By pooling their resources and expertise, both countries can accelerate the deployment of cutting-edge

energy solutions and strengthen their competitiveness in the global energy market.

In conclusion, Turkey and Azerbaijan have significant potential for further collaboration and partnership in the energy sector, with a focus on renewable energy, energy efficiency, market integration, and research and development. By leveraging their respective strengths, fostering cooperation, and embracing sustainable energy practices, both countries can continue to drive economic growth, enhance energy security, and lead the transition to a more resilient and sustainable energy future. Through shared vision, commitment, and strategic planning, Turkey and Azerbaijan can forge a dynamic and enduring energy partnership that benefits their citizens, economies, and the broader region.

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# THE TRAINED POLICE COMPETENCY AND WORK PERFORMANCE IN THE CAMBODIAN POLICE FORCE

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## Abstract

Police officers need to have enough competent to perform their duties. The study on the trained police competency and work performance in Cambodian police force is to explore the capabilities of police officers after training and the effect of their training on daily work performance at work. It also seeks to discover the challenges that police officers confront in their work performance. Secondary data analysis was used for this study. Annual police work performance reports, and other available sources were gathered for this study. Observation of police work performance was one of the ways applied for data analysis as mentioned in the scientific methods. The overview of this study found that basic police professional training is the foundation of work performance of police officers. However, the time spent for basic police training of the new recruits which is between three to four months is too short to equip stronger police officers for nonlethal skill tactics preparing for unexpected situations.

**Keywords:** *competency, work performance, training, police officer, professional.*

## 1. Introduction

As law enforcement officers, police play significant roles in protecting the law, keeping social security, order, and public safety. The role enables police officers to apprehend and detain subjects suspected of committing criminal activity. The performance of their roles and obligations helped the public evaluate the ability of police officers in crime prevention, protection, and crime arrest. These roles are complicated and risky during operation to crackdown the suspects of drug cases, armed robbery, and other illegal behaviors. To have such ability, police are required to attend training for self-defense and use of force or nonlethal skill tactics so that they could perform tasks responsibly, professionally, and accountably (O'Neill et al., 2019 & Thompson & Payne, 2019).

In Cambodia, the Ministry of Interior has implemented its human resource development planning based on the policy of the government to strengthen capacity and to uphold the national police professional code of conducts for them to perform work effectively. Cambodian police have been trained before they have enough capability to do practical field work operation in their respective territory. They are trained in short-

term and long-term program both inside the country and abroad. Cambodia provides short and long-term training to police trainees on basic professional training between three months to four months. Additionally, the Police Academy of Cambodia (PAC) and the six national police training schools under its management deliver degree program – bachelor, master, and doctoral degree program – to the new generation cadets in the hope that these human capitals would be important key resources as agents to protect social security, order, and public safety (PAC, 2019). The PAC has a slogan written “If you drop much sweat and tear in training, you will drop less blood on the street”. Similarly, Paoline III & Terrill (2007) claimed that police officers who attended training in higher education or passed their long-term professional skill training would be knowledgeable and full of experience, leading them not to utter inappropriate words or force on the criminal or suspects in their curb operation.

Though Cambodian police received training, some of their operations to repress criminals they were observed to be hurt or killed by the illegal groups. For instance, two police officers were killed during operation to arrest the targets suspected of involving in drug business in 2022 in Kandal province (Kim Sarom, April 21, 2022). The other case was that thief shot the penal police wounded in Pursenchey district, Phnom Penh in 2023 (Sokha Senchey, 18 April 2023). Such results of police operations responded to the annual report of the General National Police Commissariat (2019) that wrote the law enforcement officers have less capability and quality to meet the needs of development in the region and the globe, especially to respond to cybercrime in the fourth industrial revolution.

This article noticed the necessity of police training to perform better work for public safety. It wishes to explore the capabilities of police officers after training and the effect of their training on daily work performance at work. It also seeks to discover the challenges that police officers confront in their work performance.

## 2. Conceptual Framework/ Literature Review

This literature discusses the capability of trained police and their quality of work to protect social security, order, and public safety.

## 2.1 Trained Police Competency

Police training is necessary to prepare police officers the capacity development on different components of education. Trained police would be able to understand complex and multifaceted situations. They could analyze situations and defend themselves as well as arresting the criminals in the community. In a sense, the police operation to perform the work needs skills from training. Staller et al., (2022) found that police officers missing in training would be chaotic in very-dynamic conditions. Training assisted police officers to be flexible and adaptable and be ready for serious threats and dangerous situations. This literature wishes to discuss the five types of competency qualities – knowledge, skills, self-concepts and values, traits, and motives (Chouhan & Srivastava 2014, as quoted Tucker and Cofsky, 1994) and professional code of conducts of police officers received from capacity development training.

### 2.1.1 Knowledge

Police knowledge is necessary to inform police officers the tactics, tricks, and actions of the criminals. It contributes to the analysis of situations that police officers could use to accomplish the mission on time (Holgersson & Gottschalk, 2008). Without it, police could not follow the footpath of those who caused harm to society. Police training is not only equipped knowledge and skills, capability, and behaviors for tasks performance, but also as the basis for long lives learning of police graduates (Williams et al., 2019).

### 2.1.2 Skills

The confrontation between police and the suspects is a life and death incidents during operations (Lagestad, 2012). O'Neill et al. (2019) noticed that police education and training are important for self-defense and the decision to use or not use of force. Training equipped police the nonlethal skills such as the proper ground fighting, weapon control, the use of spray, and so on prepare physical fitness and mental health of the police for any work situations (O'Neill et al., 2019 & Kleygrewe et al., 2022). O'Neill et al. (2019) claimed that fluency to apply the nonlethal techniques would reduce police officers from employing lethal strength. Also, the training helps them to take appropriate means in the daily activities of police operations (Isaieva, 2018).

### 2.1.3 Self-concepts and values

Police work informed the operational officers to be ready for unexpected situations and alert them about how to respond to the potential life-threatening confrontation (Stradling et al., 1993). Police officers did not only get trained on combating skill techniques, but the training also prepared them to have a high level of stressful tolerance. The training helped police officers to learn about their attitudes, value, self-image, and or self-confidence in their police mission, especially it

would bring about good work results (Chouhan & Srivastava, 2014).

### 2.1.4 Traits

Liab et al. (2020) found the relationship between personality traits and further training. These personality traits were also found to be the evidence of work performance of police officers (Sanders, 2008). Abrahamsen (2006) noticed that traits of dependency, agreeableness, and emotional stability were found among police officers which made them different from those who were not police. Additionally, police officers were found to have the traits of strength, courage, determination, self-interest, hot tempered, doubt, solidarity, preservation, and obey the leaders (Twersy-Glasner, 2005).

### 2.1.5 Motives

Police officers were trained to work hard as a preparation for unknown circumstances. The social security, order, and public safety relied on their sweat and tears. Their motivation to sacrifice themselves for these causes were found linked to their mindset, determination, emotion, want, physical needs or other similarities (Chouhan & Srivastava, 2014). Additionally, police officers have the preference to offer services to others due to their job satisfaction and to network linkage that they have with other police officers (Lester, 1983 & Navarro Abal et al., 2020). Additionally, it was found that offering position was the only source of self-determination in police work. The higher position, the higher self-determination, different from officers without determination (Galnes et al., 1984). Police officers' motives could otherwise connect with what Dong et al. (2019) confirmed as saying the achievement from strong commitment of work unless police officers has been given opportunities to use their position power suited to the job responsibilities and professionalism.

### 2.1.6 Professional Code of Conduct

Police officers were expected to apply professional code of conduct after training. The good application of the code of conduct reflected the strong moral courage of police force that perform duties professionally (gamble, 2012). It would gain public trust and engage the public to report crime activity in their neighborhoods. Hence, police officers are required to practice the following moral guideline such as honesty, politeness, and confidence in handling tasks. Additionally, police officers must obey the institution's guidelines (Newberg-Dundee Police Department, 2010).

In Cambodia, Police discipline no. 006 bor bor Chor is the regulation adopted as a guideline of police professional code of conduct in Cambodia. Nine principles of police moral obligations for police officers to apply at work as follows:

- Be honest to the nation, religion, and king.

- Solute and perform honestly to government police guideline. Serve the interests of the people with honesty and not to harm the interests of the people.
- Respect and execute strictly and justly to the laws and regulations.
- Perform obligations as the national police force.
- Have attitudinal dignity and focus on work.
- Prevent and protect the nation, ministry, and the institutions.
- Be just in all actions and do not use position and state property for the benefit or against any political parties.
- And prevent from going to gambling shop without obligations.

The nine principles are a part of upholding the practice of police mission in protection the security, order, and safety of the people.

## 2.2 Work Performance

The success of police officers' tasks was considered as the achievements of the police institution. Previous studies found that there were many factors contributed to the work performance of police officers. Scott et al. (2009) claimed that training was one of the most important factors that determined quality and competency of staff. Training strengthened police officers their tolerance level, increase their intelligence, understand culture and values, increase self-discipline, and enhanced emotional management ability. Moreover, the less training the police officers received, the more chaotic their performance would be, leading to forcing people for money or providing bad service to people. Tengpongthorn (2017) found that factors influencing effective work performance of police officers were motivation, working safe, and having materials and equipment for operations.

## 3. Methodology

Secondary data analysis was a method used in inquiry process followed by systematic procedure (Johnston, 2014). This method was used for the reanalysis of existing collected data and considered as technique for data collection in social science research (Punch, 2005 in Chivaka, 2018). Researchers using this method analyzed the data that they were not engaged during data collection process (Bryman, 2004 in Chivaka, 2018).

This article based on the secondary data of previous research studies in police operation and annual reports of the General National Police Commissariat from 2018 to 2022 in Cambodia. Especially, the study observed the daily operation activity of police work reported through online news and other available media network to help understand the nature of police operation. This met the criteria of facts analysis, causal relations, phenomena conclusion in scientific method (Stanford, 1899).

## 4. Results/Findings

### 4.1 Capacity Development of Cambodian Police Officers

To achieve the demand of human development plan of the Royal Government of Cambodia, the Ministry of Interior has enhanced training to all police entities under its jurisdiction. Thousands of police officers were found to have been sent from various departments for trainings on different courses of areas of work inside the country and abroad (General National Police Commissariat, 2019, 2020, 2021, and 2022). They were also found to be sent to receive new work experience in seminars abroad. These were good achievements to improve the work performance of police officers in their respective fields.

### 4.2 Work Performance Attitudes

Virtues, morality, discipline, and professional code of conduct have been found strengthened regularly among Cambodian police officers. Moreover, police leaders kept on reinforcing the officers' capacity and quality of work to achieve the national policy on village, commune sangkat safety (General National Police Commissariat, 2019, 2020, 2021, and 2022). The study also found that Cambodian police officers have strong attitudes toward working together to improve ways to tackle issues arose faster and more effective for safety and security of the people and the country.

### 4.3 Capability in Social Security Management

Professional work attitudes were found among police officers. They implemented their work professionally. In their operations for public safety, order and security, police officers applied three actions. First, they practice the professional task performance for the image of Cambodian national police institution, the Ministry of Interior. Second, Cambodian police officers always use educational action or measure to educate those who committed minor issues – such as violate traffic law and so on that affects the social order. However, police officers apply administration procedure for those apprehended with severe criminal activities (General National Police Commissariat, 2019, 2020, 2021, and 2022). The commitment to their work, Cambodian police officers keep on working hard to protect peace, social security, order, and public safety throughout the country. Suspects, criminals, and movements of color revolution that attempted to create upheaval in society and to overthrow the government were all arrested and sent to court for imprisonment. These findings reflect the achievement of work performance of Cambodian police officers and their competency.

### 4.4 Operation to Combat Criminal Activity

The data from general national police commissariat from 2019 to 2022 clearly confirmed that Cambodian police officers have accomplished most of their operations. In all forms of abnormal situations happened throughout the country, police officers were



able to arrest the offenders or criminals in very short time. For example, Cambodian police officers recaptured the Taiwanese drug trafficker and his seven rescuers who managed to escape from prison in Siem Reap Province (Om Bunthoeun, August 19, 2023). Also, police officers have achieved many other operations to seize tons of addicted drug substances and other illegal cases. Additionally, Cambodian police were found to reduce rape cases, unintended murder, thief, cheating, abuse of trust, violences, domestic violences, and other offenses (Ministry of Interior, 2023).

Risk takings were one of the aspects identified in police work to combat outlaw individuals or groups. Each operation, police officers were challenging to confront the suspects, especially when the individuals have weapons or hazardous objects with them. In direct observation of the reality, some Cambodian police officers do not have weapons or protected materials to shield them during confrontation with criminals. Some police officers experienced and were reported to have hurt or killed in operation to apprehend the perpetrators. For instance, the case of two police officers killed in a raid on drug traffickers (Kim Sarom, April 21, 2022) and a case of a gangster hacked a police officer to severely injured once he managed to protect the mother of the attacker (Freshnews, April 22, 2023).

Through the daily interaction and observation on work performance, police officers were found to have enough ability to develop plan and use tactics appropriate to capture the offenders. However, Cambodian police officers were found did not have strong enough physical strength, body movements, and combatting tactics – nonlethal skills – ready in serious situations.

These findings revealed that Cambodian police officers have strong capability to complete their work operation successfully. They were able to confront the risk of life-and-death in their work during combatting the suspects to protect social security, order, and public safety. Many achievements were found from their commitments. However, Cambodian police officers were found with high risks when they were in confrontation with culprits because some of them did not have weapons or protective devices such as shield to protect themselves. Moreover, they did not have nonlethal skills ready for unknown accidents in their operation.

#### **4.5 Collaboration and Partnership**

The competency in knowledge and skills are important for police delivery service, still Cambodia police officers developed collaboration with partners stakeholders to help increase the work results. The report confirmed that through collaboration, police officers would be able to apprehend the suspects on time (General National Police Commissariat, 2019, 2020, 2021, and 2022).

#### **4.6 Challenges of Police Officers' Work Performance**

Even though Cambodian police force have been trained to increase and improve their capability, still there were some challenges found. First, the government was trying to equip some modern technological materials for police work, but there were limited number of police officers who have enough knowledge and skills to use it. Second, some old frail police officers could not be able to share their work experience to younger police officers. Third, the royal government of Cambodia has attempted to modernize the materials and necessary equipment for police work, but there were not enough. Fourth, capacity development training for police officers was between three to four months was not enough to equip all skills needed for confidence police officers' work performance.

#### **5. Discussions**

The competency and work performance of trained police officers described in literature and the findings from secondary data reflected the quality of police training in Cambodian context. It informed the comprehensiveness of the police training to build the police officers' competency ready for work performance to combat criminal activity.

The findings confirmed police officers took deep concerns over virtues, morality, discipline, and professional code of conduct. They kept on reinforcing this. Also, a sense of team assisted police officers to have strong attitudes toward working together to improve ways to tackle issues arose faster and more effective for safety and security of the people and the country. These findings added up on the motives of the five types of competency qualities – knowledge, skills, self-concepts and values, traits, and motives (Chouhan & Srivastava 2014, as quoted Tucker and Cofsky, 1994).

In Cambodia, the new recruits are required to get three to four months training before allowing to assume police roles. The results of the study found these police officers who attended three to four months basic police training have capability to perform their tasks. They could plan and use police tactics to capture the suspects successfully. However, in between this period is too short for Cambodian police officers to learn to know how to use nonlethal skills so that they could handle unexpected situation effectively. Though many Cambodian police officers could have opportunities to get additional training, still they would confront the life-and-death situations if their physical and mental flexibility were not strong. In Europe, the basic police training for police recruits was one year in some European law enforcement agencies while other agencies could spend three and a half years before assuming their work (Kleygrewe et al., 2022). This study period of basic police training at the police training school or academy in Cambodia offers

concerns for police operation in this fourth industrial revolution and the fast development of technology.

On the other hand, the materials and equipment necessary for work performance were still found a problem for the concerned operational department combatting crime or cybercrime detection or traffic monitoring. Police officers acknowledged that the lack of these stuff, some of their tasks to work on would be delayed or the arrest of the criminal on street is not on time. This explains the need to assist the operation entities for their use as well as to help protect them from any attacks in the work.

## 6. Conclusion

From this critical review of secondary data analysis, the study informed the level of competency of trained police officers in Cambodia and their work performance ability. Police officers' competency were increased as the results of their basic police training. The work performance was strongly relying on police training. Results from police work performance were reflection of quality of training that Cambodian police officers received from training school. The competency of trained police officers did not come from only one source of training, but the knowledge equipped from training enabled police officers to stay confidence in police professional code of conduct, to keep on learning, and to collaborate and partner with other entities or agencies supporting to police work performance.

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# EXAMINATION OF THE NEW PUBLIC ADMINISTRATION (NPA) APPROACH AND TRAFFIC SAFETY MANAGEMENT WITHIN THE FRAMEWORK OF EUROPEAN UNION (EU) HARMONIZATION LAWS

Dr Sinan Cinkir\*

## SUMMARY

This study is important in terms of contributing to the shaping and development of Turkey's policy decisions in this field by comparing Turkey's road traffic safety policies with the EU's policies within the framework of the New Public Administration Approach, examining the transportation policies implemented by the EU, and revealing potential improvements for Turkey's transition to more effective and safe practices in the transportation sector. In this context, the study can contribute to raising awareness in the society in this field by creating a basis for understanding and developing traffic safety concepts.

The new understanding of public administration has emerged as a result of the change in the private sector due to the developments in communication and technology and the criticism of the negativities arising from the structure and functioning of the traditional management approach. With the development of technology and organizational techniques, it has become the dynamic of development in many countries in an environment where capital is globalized. Transportation policy is of great importance in increasing economic efficiency and efficiency. While they set an example with the policies they set and implemented a common transportation policy, they also struggle with traffic safety problems in some transportation. Successes and problems in the field of transportation directly or indirectly affect other sectors.

In this context, the EU has revealed the need to create a common transport policy. Various measures have been taken to shift the intensity of road transport to other modes of transport, and progress has been made towards the target of halving the number of people killed in accidents. Turkey, which has been in the process of membership with the EU for more than half a century, also intends to act jointly with the Union in developing traffic safety policies in transportation. In Turkey, where road transport is dominant and thousands of people lose their lives in traffic accidents every year, the legislation is partially compatible with the EU acquis in a way that is not homogeneous. It will be a long and difficult process to divert road transport to other modes of transport. In the study, the transportation sector is discussed in the context of the main features of the transformation faced by the Turkish public administration in the EU harmonization process. For this purpose, Turkey's road safety policy

and the common transport policy and system implemented by the EU are examined in the context of the proposed changes and understandings in the legal framework in road transport within the scope of harmonization with the EU, and are discussed in the context of the new public administration approach and the transportation sector and road safety.

**Keywords:** *New Public Administration, European Union, Security, Transport, Traffic Safety.*

## ENTRANCE

In order to ensure security, social, economic and environmental factors as well as military or political measures must be used effectively. Therefore, a country's security strategy should not only be focused on defense and military power, but should also include social welfare, economic stability and environmental sustainability. In this context, transportation and traffic safety play a major role in the daily life of societies. Creating a safe transportation system has been one of the primary goals of governments and local governments, as inadequate transportation infrastructure and traffic regulations can cause serious accidents and loss of life.

The necessity of a common transport policy has become inevitable to ensure the free movement of the four factors (goods, people, services and capital) that form the basis of the EU. The aim of EU transport policy is to ensure that transport systems meet the economic, social and environmental needs of society. Transport systems are of great importance for the well-being of Europe due to their contribution to economic growth and their impact on society and the environment. (Keep Europe Moving, 2006, p.6).

## New Public Administration Approach Approach

Limitation in participation, hierarchical structure and centralism, which are the hallmarks of traditional nation-state structures, are characteristic elements of modern public bureaucracies. However, the new understanding of public administration proposes a significant change by adopting principles such as decentralization, pluralism, and emphasizing the fragmented structure (Özer et al., 2019: 547). There are many factors that are effective in this change. The most important factor is that economic-based events trigger changes and transformations in societies. In the period

when the modern state understanding was dominant, the authority to intervene in the economy was given by implementing Keynesian policies in order to overcome the 1929 Economic Depression. This interventionist approach has led to changes in the functions of the state by bringing with it the understanding of the welfare state. The 1973 Oil Crisis and the loss of functionality of the Fordist production system caused changes in many areas in the public sector. Crises and increasing expenditures have pushed the boundaries of the social state and led to serious debates on the duties of the state (Özer et al., 2019: 548).

Another factor that shaped the field of administration was the idea of the "New Right" that emerged after World War II. The idea of the New Right has formed the basis for the change of globalization in state structures in the context of crises in the economy after the failure of classical liberalism to fulfill its function. This idea emphasizes the need to abandon the provision of public services using state resources and to return to the dynamics of a free market economy (Bilgiç, 2008: 104-105). The New Right proposes to abandon statist policies and use local government by reducing the influence of legislative power in the administration. This idea aims to ensure the participation of the whole society, starting from the local level closest to the society in decisions and public policies (Özer, 2005: 165).

### **The Concept and Importance of Transportation**

Transportation can be considered as a service that enables the economical relocation of living or inanimate beings from one point to another for certain purposes. This process is carried out by a transport system that consists of a number of basic elements.

Changes in transportation mark important period points, and one of these periods is the invention of the engine and the emergence of a large number and variety of vehicles (Bakırcı, 2012: 342). The invention of the engine is considered a turning point, allowing transportation to take place effectively, as this allowed for the development of faster and more efficient means of transport. Important economic activities such as the distribution of products and services, the development of domestic and international trade, and the efficient distribution of natural resources depend on the proper planning and implementation of the transportation sector. Although the transportation sector does not aim to produce, it is a service sector that plays a critical role in the efficient operation and productivity of other sectors (Akgüngör and Demirel, 2004: 424).

The history of transportation reflects a multifaceted activity with its social, economic, political and environmental dimensions. Transportation systems play an important role in maintaining this activity. Transport is a key sector that affects not only the physical transportation of goods and services, but also cultural interactions, the development of trade, social relations, and economic development.

### **EU Transport Policies**

It established the European Economic Community with the Treaty of Rome in 1957 with the idea of establishing a common policy in the fields of European economy, transportation, agriculture and foreign trade. Therefore, measures were taken to create an economic union. Over the years, the basic steps of the transport policy were taken in 1972 with the participation of England, Denmark and Ireland, with a focus on maritime transport. Continued freedom in inland waterway transport in 1973. In 1992, the Maastricht Treaty developed the political, financial and institutional foundations of the transport system, established the Trans-European Transport Network and laid the foundations for a sustainable integrated transport policy (Kuşçu, 2011, p. 79 - 80). In 1995, the *"Common Transport Policy Action Plan"* and the Green Paper titled *"Fair and Effective Prices in Transport"* were published, in 2001 the *"2010 Common Transport Policy"* was published; in 2011 the *White Paper* titled *"Time to Decide"* and the *"Roadmap to the Single European Transport Area"* The White Paper shows that the transportation systems of the European Union aim to be a sustainable system and develop and transform (Köser, 2011, p.62). These goals include reducing dependence on oil in transportation, creating a positive atmosphere by creating a competitive environment, reducing the greenhouse gas emission rate by more than 50% by 2050, and reducing the density in the transportation sector (Saatçioğlu and Çelikok, 2017, p.82)

The transport sector accounts for around 7% of EU GDP and around 5% of jobs across the EU.<sup>7</sup> The sector employs around 8.8 million people in 27 EU countries. About two-thirds of the employees in the sector are active in land transport (road, rail, inland waterway), 2% in maritime transport, 5% in air transport and 30% in service (loading and unloading, storage of goods, transport companies and storage, travel, tour operator, assistance and support) (EU, 2008, p: 97)

In 1995, the *"Common Transport Policy Action Plan"* and the Green Paper titled *"Fair and Effective Transport Pricing"*, in 2001, the *"2010 Common Transport Policy"*; The white paper titled *"It's time to decide"* and the white paper titled *"Roadmap for a Single European Transport Area"* were published in 2011, and it is clear that the European Union's transport systems aim to develop and become a sustainable system (Köser, 2011, page 62). These goals include reducing the dependence on oil in transportation, creating a positive atmosphere by creating a competitive environment, reducing the greenhouse gas emission rate by more than 50% by 2050, and reducing the density in the transportation sector (Saatçioğlu and Çelikok, 2017, p.82).



## European Union Harmonization Process and New Management Approach

One of the factors affecting the restructuring of the Turkish public administration is the process of harmonization with the European Union. The main purpose of the reforms observed in Turkish public administration in recent years is to complete the democratic management system by taking into account the principles of good governance such as "transparency, accountability, participation and sensitivity". In fact, it is worth mentioning here that the will to implement governance in Turkey has changed in the last decade due to various factors. In other words, the impact of the democratization process, the development of relations with the European Union, the increase in citizens' demands for management and the creation of new mechanisms for better quality service have changed the content and scope of governance practices and even started to evolve towards a new approach in public administration. (Özer and Çiftçi, 2023:29). Turkey's efforts to adapt its administrative structure to EU standards are among the important factors that require changes in public administration. Especially after obtaining the status of a candidate country at the Helsinki Summit in 1999, efforts to bring the legislation and institutional structure of our country in line with the European Union have gained momentum.

## CONCLUSION AND RECOMMENDATIONS

Security is an abstract concept and can be associated with broader concepts such as human security. Security is a concept that deals with the coexistence of societies and is considered one of the basic functions of the state. Protection can be defined as the conflict between humanity and inhumane behavior. This involves the conflict of positive and negative traits, such as compassion security and physiological security. The concept of security is a dynamic factor and is also related to interests. The approaches of public administrations are of great importance for the dynamic and good functioning of transportation, which is the basis of the service sector, which was created to provide more effective access to goods, services and resources.

The new public administration approach, which emerged as an alternative to traditional public administration, is based on the principles of flexible and participatory management, decentralization, entrepreneurial manager efficiency and efficiency. In this context, one of the main factors of the restructuring of the New Public Administration in Turkey has been the harmonization process with the European Union. In addition, efforts to promote good governance policies such as transparency, accountability, and participation have played an important role in the EU harmonization process. Despite the progress made in the process of harmonization with EU legislation in the transport sector in Turkey, more efforts need to be made to

harmonize with the relevant *acquis*, transpose it into national legislation and implement it effectively.

Although progress has been made in the process of new public understanding and harmonization with the EU, it is necessary to ensure coordination between transportation systems and to create a combined transportation system in order to revitalize the transportation sector, to ensure a balanced distribution between transportation systems and to deliver transportation faster and cheaper. In order for Turkey's transportation sector to reach the desired level, a qualified workforce is needed. In addition, it is important to increase the share of investment allocated from the budget and to renew infrastructure systems. Thus, by accelerating legal and technological regulations, a transportation sector in accordance with EU standards can be created. However, problems such as oil dependency, traffic density and regional infrastructure development differences seen in the EU common transport policy are among the issues that need to be taken into account for Turkey.

EU transport policy aims to solve some problems such as traffic congestion, energy dependency and problems related to the safety of life and property by supporting efficient, safe, environmentally friendly and user-friendly transport services. The EU has made great progress in the implementation of transport policy, especially in recent years. In the transport sector in Turkey, finding solutions through framework documents and guidelines, taking into account the solutions proposed in the EU, is expected to significantly increase the value of Turkey's foreign trade and global competitiveness. Efforts for change in public administration in Turkey are carried out with an understanding based on citizens. It is stated that significant progress has been made in the Turkish public administration after 2003. The developments in Turkey's relations with the European Union, the democratization process and the continuation of the New Public Administration approach have affected the changes in public administration, especially in the field of transportation. At the same time, Turkey's EU harmonization efforts have also been effective in carrying out the management with a modern understanding of traffic safety.

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