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## Case Study of Repeat Offender with Jinn Possession



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**ABSTRACT:** A case study on a male British Muslim repeat offender was presented. He had been involved in violent crimes since he was a teenager and had served several prison sentences. He had no recollection of committing the crimes and only knew of his violent actions from others. He was later diagnosed with bipolar disorder and was under medication. His condition improved briefly but relapsed soon after. His parents brought him to a jinn possession expert, where he was diagnosed with jinn possession using a newly developed jinn possession scale. The subject agreed to engage in therapy for jinn possession. He became aggressive with threatening behaviour during the third therapy session, confirming the case for jinn possession. A multi-psyche model explains how jinn possession can affect behavioural changes and the connection between jinn possession and mental disorders. Modern medication can be complemented with therapy for jinn possession to bring better therapeutic benefits.

**KEYWORDS:** Complementary therapy, jinn possession, *ruqyah*, repeat offender

### INTRODUCTION

The International Classification of Diseases ICD-11 describes Trance and Possession Disorder as “a marked alteration in the individual's state of consciousness, and the individual's customary sense of personal identity is replaced by an external 'possessing' identity and in which the individual's behaviours or movements are experienced as being controlled by the possessing agent.” (1). The “external possession identity” refers to spirits or demons and is called the jinn in the Islamic faith. Verse 275 of Chapter 2 in the Quran is evidence of the reality of jinn possession (2). Mental disorders and jinn possession have overlapping symptoms. A quantitative study identified 23 significant symptoms of jinn possession, with 12 of them are also symptoms of mental disorders (3). The presence of overlapping symptoms on a patient will result in different diagnoses by psychiatrists and jinn possession healers. This creates confusion to the patient as to whether he has a mental disorder or jinn possession.

Jinn possession can be diagnosed using *ruqyah*. *Ruqyah* is a popular method for the diagnosis and treatment of jinn possession (4). *Ruqyah* is an incantation where verses of the Quran, salutations of the Prophet, supplications or anything that complies with the Islamic Shari'ah (law) are recited on a person (5). Any adverse reactions by the person are taken as an indication that the person has jinn possession. This is only a test of true positive, and there can be false negative cases where the person with jinn possession does not have any adverse reactions towards *ruqyah*.

### CASE PRESENTATION

The subject, a 37-year old male British of Arab ethnicity, is a repeat offender and had served several jail sentences for violent crimes he committed. He is currently awaiting trial for another alleged violent crime. He said he had no recollection of committing the crimes and only knew what he did from others. He said he had problems with himself since the age of fifteen. He went to Jordan not too long ago, where he was diagnosed with bipolar disorder and was prescribed the appropriate medication. His condition improved, but he relapsed after returning to the UK despite still taking the medication. His parents suspected that he may have been affected by jinn possession and arranged for a diagnosis session.

### DIAGNOSIS OF JINN POSSESSION

Jinn possession can be diagnosed via *ruqyah* or the new jinn possession scale. The scale was developed by analysing the significant symptoms of jinn possession (6). A scoring system is based on the summation of the loadings from the Principal Component Analysis of the significant symptoms, with any score above 1.9 is considered positive jinn possession. The subject had several significant symptoms of jinn possession. They are "dream of ghosts", "dream of strange features", "dream of poisonous or

## Case Study of Repeat Offender with Jinn Possession

predatory animals", "dream against Islam", "absent-mindedness", "hearing voices", "loss of meaning of life", "aversion from remembering Allah", "inability to focus", "paranoid", and "feeling suicidal". According to the scale, the score is 6.418, which is positive jinn possession.

*Ruqyah* was read on him, but he did not show any adverse reaction. He was advised to come for a 1-day intensive *ruqyah* comprising three sessions. He came five days later, but he did not react to *ruqyah* on the first session. In the second session, he became physically aggressive and with threatening behaviour. The subject said to the *ruqyah* practitioner, "Get off him. He is mine". *Ruqyah* practitioners will take this as the jinn overpowering the subject and the jinn that spoke, hence a case of confirmed jinn possession. The subject did not react towards *ruqyah* on the first two sessions. Some *ruqyah* practitioners may conclude that he did not suffer from jinn possession. However, this proved to be a false negative in the *ruqyah* diagnosis method. The jinn possession scale proved to be more accurate than *ruqyah*.

## DISCUSSION

Jinn are physically different from humans but have similarities with humans spiritually. Like a human, a jinn has a psyche. In jinn possession, the human body hosts both the human psyche and the jinn psyche. The multiple psyches can cause inter-psyche conflicts between the jinn psyche and the human psyche or between jinn psyches, as shown in Figure 1 (3). These conflicts are manifested as symptoms of mental disorders. The Islamic multi-psyche model is a superset of the Western single-psyche model. A stronger jinn psyche can overpower the human psyche and take control of the human central nervous system. The severity of the jinn possession is determined by the power balance between the human psyche and the jinn psyche. The effect can be either total possession or partial possession. There are two types of total possession. The first type is when the jinn psyche fully controls the central nervous system and assumes the victim's personality so that no one suspects the victim has been possessed. However, the victim will have no recollection of what had happened during the state of possession, similar to one will not be aware of one's action during sleep-walking. The second type is when the jinn will exhibit its personality, which is remarkably different from the victim's or can cause a trance. As in the first type, the victim will not be able to recollect anything that happened during the possession or trance. Partial possession is when the victim is aware of what was going on during the state of possession. If the jinn's psyche is stronger than the victim's, the victim may not be able to stop the jinn from controlling himself, such as physical bodily movements or speech. The victim's psyche will be reduced to a helpless observer. If the victim's psyche is stronger than the jinn's, he or she will be able to prevent the jinn from taking any physical control.

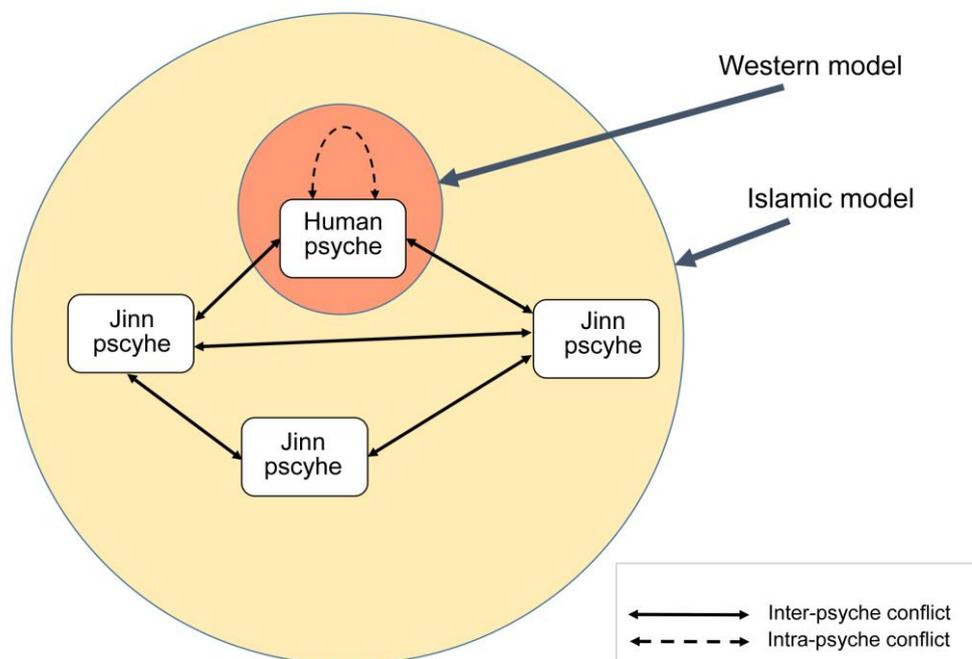


Figure 1: Multi-psyche model for jinn possession

The subject did not recall his actions in committing the crimes. This is consistent with the first type of total possession. The jinn has been weakened by the third *ruqyah*, thus reducing the severity of the possession to partial possession. This was observed when the *ruqyah* practitioner instructed the subject to focus and take control during the aggressive episodes. The subject could

## Case Study of Repeat Offender with Jinn Possession

hear the practitioner instructing him to focus and take control of himself. He then recited verses of the Quran and eventually gained back control of himself. The *ruqyah* practitioner used psychotherapy to enable to subject to regain control of himself. The subject had been diagnosed with bipolar disorder, and medication had helped him get better for some time. His extreme change of mood is consistent with the symptoms of bipolar disorder. However, the underlying issue of jinn possession had not been addressed, and the effect of the medication was limited. Therefore, complementary treatment for jinn possession is needed, and this must also be accompanied by a psychotherapy approach that acknowledges the reality of jinn possession.

### RECOMMENDATIONS

Some persistent offenders hate the crimes they did but could not explain why they kept committing crimes. Further studies on this group of people are needed concerning the extent of jinn possession. A combination of treatment can be administered to those who have been identified with jinn possession in place of jail sentences. The treatment can comprise modern medication, *ruqyah* and psychotherapy. *Ruqyah* has been known to have a therapeutic effect, as in the case study of a British Muslim with cluster headache (7), a case study of a person with severe eczema (8), and even have a therapeutic effect on the treatment of depression (9). The combination of *ruqyah* with modern medicine can also give a sustainable recovery, as in the case study for treating a person with major depressive disorder (10).

The jinn possession scale is a convenient method for diagnosing jinn possession and has several advantages over *ruqyah*. The scale can be used by anyone regardless of faith, can be used without learning *ruqyah*, and quickly produce diagnosis results.

### REFERENCES

- 1) WHO. ICD-11 for Mortality and Morbidity Statistics (Version : 09/2020) [Internet]. 2020 [cited 2020 Oct 7]. Available from: <https://icd.who.int/browse11/l-m/en#/http://id.who.int/icd/entity/1374925579>
- 2) Al-Qurtubi AAM. Al-Jami' li al-Ahkam al-Quran Volume 4. 1st ed. Beirut-Lebanon: Al-Resalah Publishers; 2006. 390–392 p.
- 3) Rahman HA, Mokhtar MK, Roseliza-Murni AR, Kasim AC. Intra and Inter-psyche Conflicts and Analysis of Symptoms of Jinn Possession. *Malaysian J Med Heal Sci*. 2019;15(SUPP1 April 2019):110–3.
- 4) Eneborg YM. Ruqya Shariya : Observing the rise of a new faith healing tradition amongst Muslims in east London. *Ment Health Relig Cult*. 2013 Dec;16(10):1080–96.
- 5) Khadher A, Ramli MA, Rahman NAA. Pemahaman Terhadap Aspek Penggunaan Ruqyah Dalam Rawatan Penyakit : Analisis Berasaskan Fiqh al-Hadith imam al-Bukhari. *Al-Bayan – J Qur'an Hadith Stud*. 2016;14:168–205.
- 6) Rahman HA, Husin S, Ridzwan Z. Scale for Positive Identification of Jinn Possession. *Sains Insa*. 2021;6(3):21–6.
- 7) Rahman HA, Hussin S. Case Study of Using Ruqyah Complementary Therapy on a British Muslim Patient with Cluster Headache. *Eur J Med Heal Sci*. 2021;3(1):5–7.
- 8) Rahman HA, Hussin S. Case Study of Ruqyah Therapy On Muslim Patient with Eczema. *Eur J Med Heal Sci*. 2021;3(1):41–3.
- 9) Afifuddin MM, Nooraini O. The Ruqyah Syar'iyah Spiritual Method as an Alternative for Depression Treatment. *Mediterr J Soc Sci MCSER Publ*. 2016;7(4):406–11.
- 10) Razali ZA, Rahman NAA, Husin S. Complementing the treatment of a major depressive disorder patient with Ruqyah Shar'iyah therapy : A Malaysian case study. *J Muslim Ment Health*. 2018;12(2).



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## Mother's Dental Health Behavior with Dental and Oral Hygiene Status in Early Childhood: A Cross-sectional Study



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**ABSTRACT: Background:** Early childhood is a group that is susceptible to dental disease, especially dental caries, so it needs special attention to prevent it. Dental caries in milk teeth that are not treated will result in disruption of masticatory function and premature tooth loss which causes abnormal eruption of permanent teeth. One of the reasons for this is poor oral and dental hygiene due to the fact that at that age they do not have independence in maintaining dental health. Therefore, the mother's role is very important in early childhood dental health.

**Objective:** This study aims to analyze the relationship between maternal dental health behavior with dental and oral hygiene status of early childhood.

**Methods:** This study is an observational analytic study with a cross-sectional approach. The sampling technique used was purposive sampling, with 222 respondents consisting of 111 mothers and 111 early childhood children. Data analysis using Chi-square test.

**Results:** Knowledge of dental health, attitudes and practices of mothers on the dental and oral hygiene status of early childhood showed a p-value of 0.001 ( $p < 0.05$ ).

**Conclusion:** there is a significant relationship between mother dental health behavior on dental and oral hygiene status of early childhood

**KEYWORDS:** Dental health behavior, mother, dental hygiene status, early childhood.

### I. INTRODUCTION

Dental health is an integral part of general health, besides that the teeth are one of the digestive organs that play an important role in the process of chewing food, so it is important to maintain dental health. Maintenance of dental and oral hygiene is one of the efforts to improve health because it can prevent the occurrence of various oral diseases [1].

The main problem of dental health in Indonesia, apart from the condition of inadequate oral and dental hygiene, also concerns the high prevalence of hard tissue disease and the supporting tissues of the teeth or periodontal tissues. The prevalence of dental periodontal disease is close to 100% due to poor oral hygiene conditions [2,3].

Winda et al research on PAUD children in Pineleng II Indah Village shows that students who have rampant caries are more than 49 people (76.56%) and those who do not have rampant caries are 15 people (23.44%) with a def index. -t is 4.3. This is included in the high category when compared to the 2018 WHO target, which is 50% of children 5-6 are free from caries [4].

The high incidence of dental caries in early childhood can be influenced by several factors, namely the frequency of brushing children's teeth, the supply of water that lacks fluoride, the long distance to access dental health services, diet and most importantly the dental health behavior of parents and awareness to guide them children. Yuniati's statement is also strengthened by stating that maternal behavioral factors affect the incidence of dental caries in children [5,6].

### II. METHOD AND MATERIAL

This study is an observational analytic study, with a cross-sectional design. The sampling technique used was purposive sampling, with 222 respondents consisting of 111 mothers and 111 early childhood children. This research was conducted at Bumi Sawangan Indah Estate, Sawangan Depok. The research variable consisted of the dependent variable on the dental and oral hygiene status of early childhood while the independent variable was the mother's dental health behavior. The data collection instrument for dental health behavior was a questionnaire and the dental hygiene status of early childhood was

## Mother's Dental Health Behavior with Dental and Oral Hygiene Status in Early Childhood: A Cross-sectional Study

measured by the PHP-M index. Analysis of the data used is the Chi-square to know r relationship between mother dental health behavior with dental and oral hygiene status of early childhood

### III. RESULT

**Table 1. Frequency distribution of mother dental health behavior with dental and oral hygiene status of early childhood**

Variable	n	%
<b>Mother knowledge</b>		
Good	63	56.8
Low	48	43.2
<b>Mother attitude</b>		
Positive	65	58.6
Negative	46	41.4
<b>Mother practice</b>		
Good	63	56.8
Bad	48	43.2
<b>Dental and oral hygiene status</b>		
Good	72	64.9
Enough	39	35.1

Table 1 shows that most of the mothers have knowledge of dental health in the good category as many as 63 people (56.8%), positive attitude as much as 65 (58.6%) and practice in the good category as many as 63 people (56.8%) as well as for the dental and oral hygiene status of early childhood mostly with good category as much as 72 (64.9%).

**Table 2. Chi-square test of mother's knowledge with dental and oral hygiene status of early childhood**

Knowledge	Dental and oral hygiene status				Total		OR 95 %CI	p value
	Good		Enough					
	n	%	n	%	n	%		
Good	50	79.4	13	20.6	63	100	4.545 1.975-10.460	0.001
Low	22	45.8	26	41.2	48	100		
Total	72	64.9	39	35.1	111	100		

Table 2 shows the results of the analysis of the relationship between the mother's level of knowledge and the dental and oral hygiene status of early childhood, obtained by statistical tests obtained p value = 0.001, it can be concluded that there is a significant relationship between mothers who have high knowledge and the status of dental and oral hygiene of children. From the results of the analysis, the OR value of 4.545 means that mothers who have knowledge of good dental health have 4,545 times the chance of having children with good dental and oral hygiene status, compared to mothers who have low knowledge.

**Table 3. Chi-square test of mother's attitude with dental and oral hygiene status of early childhood**

Attitude	Dental and oral hygiene status				Total		OR 95 %CI	p value
	Good		Enough					
	n	%	n	%	n	%		
Positive	51	78.5	14	21.5	65	100	4.337 1.894-9.930	0.001
Negative	21	45.7	25	54.3	46	100		
Total	72	64.9	39	35.1	111	100		

Table 3 shows the results of the analysis of the relationship between mother's attitude and dental and oral hygiene status of early childhood, obtained by statistical tests obtained p value = 0.001, it can be concluded that there is a significant relationship between mother's attitude and child's dental and oral hygiene status. From the results of the analysis, the OR value of 4.337

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means that mothers who have good attitudes have 4,337 times the chance of having children with good dental and oral hygiene status, compared to mothers with low attitudes.

**Table 4. Chi-square test of mother's practice with dental and oral hygiene status of early childhood**

Practice	Dental and oral hygiene status				Total		OR 95 %CI	p value
	Good		Enough					
	n	%	n	%	n	%		
Good	50	79.4	13	20.6	63	100	4.545 1.975-10.46	0.001
Bad	22	45.8	26	54.2	48	100		
Total	72	64.9	39	35.1	111	100		

Table 4 shows the results of the analysis of the relationship between mother's practice and dental and oral hygiene status of early childhood, obtained by statistical tests obtained p value = 0.001, it can be concluded that there is a significant relationship between mother's practice and children's dental and oral hygiene status. From the results of the analysis, the OR value of 4,545 means that mothers who have good practices have 4,545 times the opportunity to have children with good dental and oral hygiene status, compared to mothers who have bad practices.

## V. DISCUSSION

Mother's knowledge, attitudes and actions will determine the dental and oral health status of the child in the future. Parents should know how to take care of their children's teeth and should teach their children how to take good care of their teeth. There are still many parents who assume that deciduous teeth are only temporary and will be replaced by permanent teeth, so parents often assume that damage to deciduous teeth caused by poor oral hygiene is not a problem. A mother should have good knowledge, attitudes and behavior towards dental and oral health in order to provide oral health education to children [7–9].

The results of the study Knowledge of dental health, attitudes and practices of mothers on the dental and oral hygiene status of early childhood showed a p-value of 0.001 ( $p < 0.05$ ), meaning that there is a significant relationship between mother dental health behavior on dental and oral hygiene status of early childhood. This is in line with several studies proving that there is a significant relationship between mother's behavior and children's tooth brushing habits. Cahyaningrum's research also proves that there is a relationship between knowledge, attitudes, and actions of mothers about oral health on the incidence of dental caries in toddlers. Afiati's research proves between mother's knowledge, education and social status and child's caries index [9–11].

Stage of growth and development of the health of preschool age children is still very dependent on the care and attention that requires adults or parents and the most powerful influence in this phase is the mother. The mother's role is needed to determine the child's growth and development. So that the state of the child's health, one of which is the oral health of toddlers is still very much determined by the behavior of his parents, especially the knowledge, attitudes, and behavior of his mother [10,12,13].

Knowledge is something that is captured by the five senses. Sensing occurs in the five senses, namely the sense of sight, the sense of hearing, the sense of taste, the sense of smell and the sense of touch. And knowledge itself, mostly obtained through something seen and heard. The description of understanding knowledge at the cognitive level which is a very important domain for the formation of one's actions (over behavior). Knowledge also influences someone to do something. Behavior based on knowledge will be more lasting than behavior that is not based on knowledge will not last long [14].

Mother's knowledge in maintaining dental and oral health of toddlers is in the good category, respondents understand the importance of maintaining dental health for toddlers, it is proven that most of the early childhood children have dental and oral hygiene status in good category.

Mother's attitude is something that mothers apply if their child has a toothache and how to prevent dental and oral diseases for their children. Many of the respondents have paid attention to how to maintain the health of their children. Mothers know that dental care is very important to avoid dental disease. Attitude is a form of behavior in life, but attitude is not necessarily a real form. In everyday life, attitude is an emotional form to a social stimulus that can be evidence of a human response. Human behavior can be strengthened by believing in something. Attitude measurement can be direct or indirect. Asking directly or interviewing an object is a type of direct attitude measurement. Example The attitude of a good mother in carrying out an action will be influenced by the level of knowledge that the mother has regarding the maintenance of oral health. For example, mothers who are always looking for information related to dental health maintenance or sharing about dental and oral health

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with an expert such as a dentist, this is proof that the mother has a positive attitude in responding to problems that occur on the dental health of children [14].

This statement is also supported by the theory of Notoatmodjo, that the response can also be passive, without the act of thinking, arguing, acting or taking an action. Health behavior can be formulated as all forms of life experiences and interactions between individuals and their environment, especially regarding their knowledge, attitudes, and actions related to health. Alport's theory states that attitude has 3 main components, namely the concept of an object, a belief or belief, and an idea, an emotional life or a person's evaluation of the object, and a tendency to take an action. The three main components will form a complete attitude. Attitudes have not automatically manifested in an action (over behavior). To realize the attitude so that it becomes a real action, several supporting factors or a possible situation are needed, including adequate facilities. As an illustration of a good person's attitude towards utilizing his knowledge to gain access and information on dental and oral health, confirmation from other people must be obtained, and there are facilities that are easily accessible, so that someone can easily and properly apply it to his family members and the surrounding environment [14].

Mother's practices are things done by mothers to children in the application of children's dental and oral health. According to Budiharto, attitude can be a tangible action that requires supporting factors or conditions that allow, among others, the existence of suggestions and infrastructure or facilities. Dental hygiene measures have four levels, namely: Perception is the first level of action, namely selecting and recognizing objects in relation to the action to be taken. For example, taking the right toothbrush from a variety of toothbrushes that are presented with various shapes and hardness of bristles (soft, medium, hard bristles) to brush your teeth [15].

### VI. CONCLUSIONS

Based on the results of the study, it can be concluded that there is relationship between mother dental health behavior on dental and oral hygiene status of early childhood

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### REFERENCES

- 1) Kemenkes RI. Pedoman Usaha Kesehatan Gigi Sekolah (UKGS). Jakarta Kementerian Kesehatan RI 2012.
- 2) Adiatman M, Yuvana AL, Nasia AA, Rahardjo A, Maharani DA, Zhang S. Dental and gingival status of 5 and 12-year-old children in Jakarta and its satellite cities. *J Dent Indones* 2016;23:5–9.
- 3) Badruddin IA, Kiptiyah NM, Prihartono N, Agtini MD, Musadad DA. The association between sweet food consumption, time of tooth brushing and dental caries experience in 12-to 15-year-old children in Indonesia (analysis of Indonesian health basic research data, 2013). *J Int Dent Med Res* 2017;10:583–9.
- 4) Winda SU, Gunawan P, Wicaksono DA. Gambaran karies rampant pada siswa pendidikan anak usia dini di desa Pineleng II Indah. *E-GiGi* 2015;3.
- 5) Purwaka DP, Kurniawati D, KG S. Hubungan Antara Tingkat Pendidikan, Pengetahuan Dan Perilaku Ibu Terhadap Status Karies Pada Anak Usia Prasekolah DI TK LAKSMI, Kartasura, Kab. Sukoharjo Tahun 2014 2015.
- 6) Yuniati RD, Endang Nur W, St S, Muwakhidah SKM. Hubungan Tingkat Pengetahuan Ibu Tentang Karies Gigi Dan Asupan Lemak Dengan Kejadian Karies Gigi Anak Balita Di Desa Mranggen Sukoharjo 2015.
- 7) Purnama T, Rasipin R, Santoso B. Pengaruh Pelatihan Tedi's Behavior Change Model pada Guru dan Orang Tua terhadap Keterampilan Menggosok Gigi Anak Prasekolah. *Quality J Kesehatan* 2019;13:75–81.
- 8) Ngatemi, Purnama T. Dental Health Handbook as Parents Monitoring in the Formation of Independence for Brushing Teeth in Early Childhood. *Indian J Public Heal Res Dev* 2020;11.
- 9) Zia HK, Nurhamidah N, Afriza D. Hubungan pengetahuan, sikap dan perilaku ibu terhadap kebiasaan menyikat gigi anak. *B-Dent J Kedokt Gigi Univ Baiturrahmah* 2014;1:43–8.
- 10) Cahyaningrum AN. Hubungan perilaku ibu terhadap kejadian karies gigi pada balita di paud putra sentosa. *Univ Airlangga* 2017.
- 11) Afiati R, Adhani R, Ramadhani K, Diana S. Hubungan perilaku ibu tentang pemeliharaan kesehatan gigi dan mulut terhadap status karies gigi anak tinjauan berdasarkan pengetahuan, tingkat pendidikan, dan status sosial di TK ABA 1 Banjarmasin Kajian di Puskesmas Kota Banjarmasin Bulan September-Oktob. *Dentino J Kedokt Gigi* 2017;2:56–62.
- 12) Berk L. Child development. Pearson Higher Education AU; 2015.
- 13) Naidu R, Nunn J, Forde M. Oral healthcare of preschool children in Trinidad: a qualitative study of parents and

## Mother's Dental Health Behavior with Dental and Oral Hygiene Status in Early Childhood: A Cross-sectional Study

caregivers. BMC Oral Health 2012;12:1–14.

14) Notoatmodjo S. Ilmu perilaku kesehatan. Jakarta: Rineka Cipta 2010;200:26–35.

15) Budiharto J. Pengantar ilmu perilaku kesehatan pendidikan kesehatan gigi. Jakarta EGC 2010:18–20.



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## Reminder Message as an effort to Increase the Compliance of Mother Toddler Visits to Posyandu



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**ABSTRACT:** Posyandu is a monthly routine activity designed to monitor the weight gain of toddlers by using the "Menuju Sehat" (KMS) card, providing nutrition counseling, and providing basic health services (immunization and diarrhea control). Reminder Message is a message that helps someone to remember something. Reminders can be more useful when contextual information is used to present information at the right time and in the right place. Reminder messages can be used to remind mothers of toddlers to schedule visits to their children's posyandu and increase the compliance of mothers with toddlers to posyandu. Objective: This study aims to determine the effectiveness of reminder messages on the compliance of mothers with toddlers visiting the posyandu in the working area of the Malaimsimsa Health Center Sorong City in 2021. Methods: The research design is a quasi-experimental approach with a one group pre-post test design. Sampling with purposive sampling technique, as many as 30 respondents consisting of 15 mothers and 15 toddlers. Data analysis was tested by Wilcoxon test. Results: there was an increase in the compliance of mothers toddlers to the posyandu where the p-value was 0.002 (<0.05). Conclusion: reminder messages are effective in increasing compliance with visits by mothers toddlers visit to posyandu.

**KEYWORDS:** Reminder messages, compliance, mothers toddlers, posyandu

### I. INTRODUCTION

Posyandu is a monthly routine activity designed to monitor the weight gain of toddlers by using the "Menuju Sehat" (KMS) card, providing nutrition counseling, and providing basic health services (immunization and diarrhea control) [1]. Posyandu is a very precise place for monitoring the nutritional status and growth of children so that by coming to the posyandu, the level of weight and height gain will be measured regularly and every month. The level of attendance at an active posyandu has a great influence on monitoring nutritional status, and mothers of toddlers who come to the posyandu will get the latest health information that is useful in determining a healthy lifestyle every day [2]. Posyandu visits to toddlers are related to the mother's role as the person in charge of toddler health, because toddlers are very dependent on their mother [3].

Basic health research data in 2018 showed that the coverage of weighing children under five in Indonesia had decreased. From the coverage rate for weighing children under five at Posyandu with an average of 77.95% in 2017 to 67.48% in 2018. The coverage figure tends to increase in 2019 with an average figure of 73.86%. The coverage of weighing children under five in 2017 in West Papua with a percentage figure of 73.42%. However, this is still below the minimum posyandu target in Indonesia, which is 80% [4,5].

The coverage of weighing toddlers at the Posyandu in the working area of the Malaimsimsa Health Center Sorong City in 2020 is 1355 babies and toddlers registered at the Posyandu and the average number of toddlers who weighed in that year was 388 toddlers. Based on the initial survey conducted in March 2021, 10 mothers of children under five were interviewed in the Posyandu working area of the Malaimsimsa Health Center, Sorong City, there were 7 mothers of children under five who gave reasons for not visiting because they often forgot the date of the posyandu so they did not make a visit, 2 of them said they were outside city, and 1 mother did not visit because her child was sick.

Reminder Message is a message that helps someone to remember something. Reminders can be more useful when contextual information is used to present information at the right time and in the right place [6]. A study has shown that reminders can be accepted as a useful strategy to increase pregnant women's adherence to iron tablets. In addition, reminder messages can also save costs and time [7]. Other studies have also shown that Reminder Messages are effective not only among groups, but also within a group. This proves the importance of Reminder Messages not only to increase compliance, but also to maintain

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compliance. Reminder Message is effective as a reminder to reduce forgetfulness, and events reduce the frequency of treatment or they may resume their treatment again. Reminder messages can encourage mothers of toddlers to comply with posyandu visits [8]. Most of the mothers of toddlers in the study area have cellphones, but they have not been used as reminders. Based on the background described, the authors are interested in conducting research on the effectiveness of reminder messages on the compliance of mothers' visits to the Posyandu in the working area of the Malaimsimsa Public Health Center, Sorong City.

### II. METHOD AND MATERIAL

The type of research used is a quasi-experiment with a one group pre-post test design. The population of this study were all mothers of children under five who were registered at the Matahari Posyandu in the working area of the Malaimsimsa Health Center, Sorong City. This sampling technique used a purposive sampling technique with a total sample of 30 consisting of 15 mothers and 15 toddlers. The inclusion criteria of this study include: being registered at the posyandu, having a cellphone with the WhatsApp application, being able to read, write and communicate fluently. While the exclusion criteria in this study were mothers of toddlers who could not operate mobile phones to open or reply to messages.

The independent variable in this study is the reminder message and the dependent variable is the compliance of mothers' visits to the posyandu. Data collection techniques were carried out by interviewing respondents using a questionnaire before being given an intervention as a form of pre-test. After the pre-test, the intervention was carried out by sending a reminder message after maghrib time on Days-3 to Day-1 of the Posyandu visit schedule and 2 hours before the posyandu started which contained greetings, schedule for posyandu visits and an invitation to attend posyandu visits. Then the researcher filled in the data reminder message checklist. After giving the intervention, the researcher conducted a post-test by giving back the questionnaire to observe the quality of compliance with visits by mothers of children under five at the posyandu.

Data analysis was carried out using two analytical techniques, namely univariate and bivariate analysis. Univariate analysis to determine the general and specific percentages, namely demographics and compliance questionnaire data. Meanwhile, bivariate analysis was conducted to determine the relationship between reminder messages and adherence to visits by mothers of children under five at the posyandu. This analysis was tested with the Wilcoxon test to measure the significance of the difference in the 2 groups of compliance data on visits by mothers of children under five at the posyandu which correlated with ordinal data that required observation (pre-post test), namely in the reminder message intervention group.

### III. RESULT

**Table 1. Frequency distribution of respondent characteristics**

Respondent characteristics	n	%
<b>Toddler age (months)</b>		
0-23 months	13	86.7
24-36 months	2	13.3
27-60 months	0	0
<b>Mother age</b>		
< 25 years	3	20
25-35 years	9	60
> 35 years	3	20
<b>Mother education</b>		
Junior high school	1	6.7
Senior high school	11	73.3
Diploma	2	13.3
Bachelor	1	6.7
<b>Mother occupation</b>		
Entrepreneur	12	80
Housewife	2	13.3
Government employees	1	6.7

Table 1 shows that the highest proportion of children under five years of age was 0-23 months with 13 respondents (86.7%) while the highest proportion of mothers aged 25-35 years was 9 respondents (60%) with the last education being high school as many as 11 respondents (73.3%) and occupation housewives as many as 12 respondents (80%).

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**Table 2. Frequency distribution of distance from residence to Posyandu**

Distance from residence to Posyandu	n	%
< 200 meters	11	73.3
200-400 meters	3	20
> 200 meters	1	6.7

Table 2 shows that the most places of residence of by mothers toddlers <200 meters from the Posyandu, namely 11 people (73.3%), living places with a distance of 200-400 meters as many as 3 people (6.7%) and only 1 person (6.3%) who live >400 meters from the posyandu.

**Table 3. Frequency distribution of mother toddler compliance at posyandu before giving reminder message**

Level of compliance	n	%
Low compliance	8	53.3
Moderate compliance	5	33.3
High compliance	2	13.3

Table 3 shows that the highest frequency was at the low level of compliance, namely 8 people (53.3%), then with the moderate level of compliance as many as 5 people (33.3%) and only 2 people with the high level of compliance (13.3%).

**Table 4. Frequency distribution of mother toddler compliance at posyandu after giving reminder message**

Level of compliance	n	%
Low compliance	2	13.3
Moderate compliance	10	66.7
High compliance	3	20

Table 4 shows that the highest frequency was at the moderate level of compliance, namely 10 people (66.7%), then the high level of compliance was 3 people (20%) and only 2 people (13.3%) with low compliance.

**Table 5. Wilcoxon test for mothers of toddlers at the posyandu before and after being given a reminder message**

Level of compliance	Mean	p-value
Pre-test	5.27	0.002
Post-test	6.67	

Table 5 shows that the mean before being given a Reminder Message is 5.27 while after being given a Reminder Message the mean value is 6.67. The results of the statistical test obtained p-value 0.002 (<0.05), meaning that the reminder message was effective in increasing the compliance of mothers toddlers at the posyandu.

## V. DISCUSSION

Compliance is the extent of behavior with the provisions given by the health profession. The best adherence to coming to the posyandu is regularly every month or 12 times a year. For this reason, weighing toddlers is limited to 8 times per year. Posyandu whose weighing frequency is less than 8 times per year are considered vulnerable [9,10].

The intervention in this research is giving a Reminder Message which is a planned effort to change the behavior of the individual. Where respondents will be given a reminder message 3 days before the posyandu is sent successively after sunset and 2 hours before the posyandu is held. The results of this study showed that the level of adherence of mothers under five to the posyandu before being given a reminder message with a low level of compliance was 8 respondents (53.3%), respondents with moderate compliance were 5 respondents (33.3%), and respondents with high compliance were 2 respondents. (13.3%) while the level of compliance of mothers under five after being given a reminder message with a low level of compliance was 2 respondents (13.3%), respondents with moderate compliance were 10 respondents (66.7%), and respondents with high compliance were 3 respondents (20%). At the time of measurement after being given a reminder message there was an increase in the frequency of moderate compliance from 5 to 10 respondents with high compliance from 2 to 3 respondents. From this data, after respondents were given a reminder message, the majority experienced behavioral changes for the better, namely in the form of

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compliance with visits by mothers of children under five at the posyandu. This is in accordance with what was stated by Pool et al who said that one intervention strategy that has proven effective in improving the care that clients receive is reminding clients to ask their provider specific questions that lead to changes in their care [8]. A number of studies have observed that this method is effective in improving prevention services such as immunization.

According to Wilcoxon's statistical test, after being given a reminder message, the average value increased from 5.27 to 6.67. These results indicate that the use of reminder messages is effective on the level of adherence to visits by mothers of children under five to the posyandu ( $p = 0.002$ ). Studies show Reminder messages are effective as reminders to reduce the number of forgetting, and events reduce the frequency of treatment, or they may resume their treatment again. Reminder messages can encourage them to comply.

Research by Van Ryswyk et al. reported that reminder messages can improve compliance and can be a very cost-effective reminder system in the future [11]. In an article describes the long-term effects of reminder message services. In health care outcomes obtained from 13 articles included, 3 reminder messages were assessed as a tool to improve attendance at a hospital or clinic [12]. From the results of statistical tests and from the results of previous studies, researchers can conclude that the presence of a reminder message can remind mothers of toddlers to schedule visits to their child's posyandu.

### VI. CONCLUSIONS

Based on the results of the study, it can be concluded there is reminder messages are effective in increasing compliance with visits by mothers toddlers visit to posyandu.

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### REFERENCES

- 1) Susilowati E. Mother Toddler Compliance Visits Posyandu in Karangrejo Village, Wonosalam District, Demak Regency. *Midwife Prada* 2017;8.
- 2) Destiadi A, Nindya TS, Sumarmi S. Frequency of Posyandu Visits and History of Weight Gain as a Risk Factor for Stunting in Children aged 3-5 years. *Indonesian Nutrition Media* 2015;10:71–5.
- 3) Idaningsih A. Factors related to toddler visits to posyandu. *Syntax Lit J Ilm Indonesia* 2016;1:16–29.
- 4) Ministry of Health RI. The main results of riskesdas 2018. Jakarta Ministry of Health RI 2018.
- 5) Ministry of Health RI. *Indonesia Health Profile 2017* 2017.
- 6) Cocidin RNF. Android Based Reminder Mobile Application Modeling. *Semin. Nas. technol. inf. and Commun.*, 2016.
- 7) Lestari DD. The Effect of Health Education and Reminder SMS on Obedience of Pregnant Women in Consuming Iron Tablets in the Work Area of the Pisangan Health Center in 2015.
- 8) Nirmala N. The Effectiveness of Reminder Messages on Compliance with Mother Toddler Visits at Posyandu Rw 05 and Rw 15 Manukan Kulon Surabaya 2019.
- 9) Pundar Y. Analysis of Factors Affecting Nurse Compliance Performing Hand Hygiene According to Spo in the Kelimutu and Cempaka Rooms Hospital. *Prof. Dr. WZ Johannes Kupang. CHMK Nurs Sci J* 2019;3:138–44.
- 10) Wahyudi Diagama YES, Hasneli Y. The Relationship between the Number of Posyandu Visits and the Nutritional Status of Toddlers (1-5 years). *J Ners Indonesia* 2019;9.
- 11) Van Ryswyk EM, Middleton PF, Hague WM, Crowther CA. Postpartum SMS reminders to women who have experienced gestational diabetes to test for type 2 diabetes: the DIAMIND randomized trial. *Diabetes Med* 2015;32:1368–76.
- 12) Househ M. The role of short messaging service in supporting the delivery of healthcare: An umbrella systematic review. *Health Informatics J* 2016;22:140–50.



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## Ability to Write Speech Texts for Class XI Madrasah Aliyah Students



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**ABSTRACT:** This study aims to determine the students' ability in writing speech texts based on their structure, aspects of spelling and punctuation, the accuracy of the choice of diction, the effectiveness of the sentences written by these students, and to determine students' abilities in deciphering the text of speech as a whole. This study was conducted in class. XI IPS Madrasah Aliyah Mamba'ul Ulum Jambi City. Using a descriptive approach. While this type of research uses qualitative research. The techniques used to collect data in this study are: Test techniques, questionnaires and documentation techniques. This research procedure has several stages, namely the orientation stage, the exploration stage, and the checking stage. The ability of this research students in writing speech texts based on the aspect of the structure of the text students are classified as capable, based on the aspects of spelling and punctuation it can be concluded that the students are less able to use correct spelling and punctuation, based on the diction aspect, it can be concluded that the students are classified as capable, based on the aspect of sentence effectiveness, it can be concluded quite capable, and all students are quite capable in writing speech texts.

**KEYWORDS:** writing, text, speech

### I. INTRODUCTION

Indonesian is a very important lesson because the language used in daily interactions and academic activities in schools, from the lowest to the highest level of education (Sari & Siti, 2017). This learning leads to four aspects, namely listening, speaking, reading and writing skills. These four aspects are interrelated with one another and must be mastered by students. One of the language skills that need to be trained and mastered by students is writing skill.

In the 2013 curriculum, Indonesian language learning is directed at developing students' language and literary competencies and attitudes through listening, reading, speaking, and writing activities (Rahayu, 2021). Learning Indonesian on the subject matter of speech texts in class XI is guided by the 2013 curriculum which is contained in basic competencies (KD) 4.6. Indicators of competency achievement 4.6.1 Determine aspects that are edited in the speech text.

One aspect of language skills related to these thoughts, ideas, opinions, and feelings is writing skills. Writing is an activity that is influenced by the power of thought to convey inspiration and ideas. In writing activities students are expected to have mastery of writing so that the writing can be well structured in learning. Writing skills are very necessary in modern life, by writing students can express their experience and knowledge, through writing this will produce useful and scientific works (Siddik, 2016).

Students' writing ability is reflected in students' writing, such as student speech texts. In writing skills, especially in writing speech text skills, students should be able to string words correctly and develop writing into a speech (Wati, 2014). Students' writing abilities are influenced by several factors such as physical condition, intelligence, strength, ability, and skills. . The habit of writing is part of the activity of writing letters with stationery and expressing thoughts in words in the media (Noriyani, 2017).

This research was carried out within the scope of the Islamic boarding school. Students in Islamic boarding schools are less interested and often underestimate the general learning process. This was known by the author when teaching Indonesian subjects at Madrasah Aliyah Mamba'ul Ulum Jambi City. Weak student interest in learning can be seen when students are often late to class during class hours. Students are always late in completing the assignments given by the teacher. This study aims to determine the students' ability in writing speech texts based on their structure, aspects of spelling and punctuation, the accuracy of diction selection, the effectiveness of the sentences written by these students, and to determine students' abilities in deciphering the speech text as a whole.

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Research related to the ability to write speech texts has been carried out previously by (Dede Sukanah, 2021) with the research title "Inquiry Learning Methods in Improving Speech Writing Ability" . speech of students who are taught using the inquiry model is higher or better than discovery learning. Further research was carried out by (Zainal Abidin 2019) with the title "Ability to Write Persuasive Speech Texts for Class I Students of SMP Negeri 1 Tommo, Mamuju Regency". Furthermore, it was carried out by (Suprihatin et al, 2017) with the title "Ability to Write Speech Texts (Case Study at SMA Muhammadiyah 1 Karanganyar)". Learning to write speech texts is very important to research. Because research can be used to confirm students' success in writing speeches. Writing speech text is required by students. To learn how to write speech texts, students must be able to speak from the results they write. The author is interested in discussing the ability to write audio text. In other words, the writer wants to know how capable the ability to write speech text is. Therefore, the authors are interested in conducting a research entitled "Ability to Write Speech Texts for Class XI Social Sciences Madrasah Aliyah Students".

### II. RESEARCH METHOD

This research was conducted in class XI Social Sciences Madrasah Aliah Mamba'ul Ulum Jambi City. Using a descriptive approach. While this type of research uses qualitative research. This type of research was chosen because it is in accordance with the research objectives, namely to determine the students' ability in writing speech texts based on aspects of speech structure, spelling and punctuation, word selection (diction), sentence effectiveness and the complete speech text. Obtaining information and data is explained as it is in accordance with the facts on the ground. This is in line with the comments (Sugiyono, 2013). The techniques used to collect data in this study are: Test techniques, questionnaires and documentation techniques.

This study aims to determine the students' ability in writing speech texts based on the structure of the speech text, spelling and sign, the choice of diction, the effectiveness of the sentence and the entire speech text as a whole. To achieve this goal, the researcher went directly to the research field to meet all students of class XI IPS. Collecting research data, aims to analyze data during the research process.

#### Data Validity Test

In this study, the main research instrument is the researcher himself, so the level of subjectivity is higher. For this reason, to ensure that the data obtained are truly objective and the results of the analysis are also objective so that the findings can be trusted, it is necessary to check the validity of research findings by testing validity (Wahidpure, 2017).

#### Research procedure

This research procedure has several stages, including:

##### A. Orientation Stage

The orientation stage aims to describe clearly and completely related to the observed case.

##### B. Exploration Stage

This stage is carried out to analyze the data that has been obtained in the field, and summarize in a more structured manner so that the maximum data will be obtained, after all the information has been collected the researcher then makes an overview of this research according to the respondents' comments.

##### C. Checking Stage

At this stage, the process of checking the data that has been obtained so that the results of the research can be accounted for.

#### Data analysis technique

The data analysis technique uses the Spradley Model in (Hardani, 2020) Spradley divides data analysis in qualitative research based on the stages in qualitative research

### III. RESULTS AND DISCUSSION

**First**, the students' ability in writing speech texts based on the introduction which contains; opening greetings, respect and thanksgiving are categorized as capable. This is known from the results of student work totaling (18 students). 17 students were able to write speech texts based on the introduction, but there was 1 student who was incomplete in writing the introduction, the student only wrote assalamu'alaikum on the first line then continued with the contents of the speech text. In the content section, a number of facts are also presented that strengthen the speaker's arguments. The essence of the speech text is as concise as possible and easily understood by the readers.

Students' ability in writing speech texts based on closing which includes; conclusion, apologies, closing. This section is the essence of the main problem presented, this section must be written in a concise, concise and easy to understand manner. Of the 18 students who wrote the speech text, they were classified as capable in the closing aspect, there were 4 students who did not write the closing part of the text they wrote.

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**Second**, based on the results of this study, students are less able to write speeches based on aspects of accuracy in spelling and punctuation. This is known from the number of students (18 students) who took the speech writing test. There are as many as 10 students who are less able to write speech texts based on spelling and punctuation, these students still use a lot of incorrect spelling and give punctuation according to the student's wishes without seeing how the punctuation is used. According to (Widagdo, 1997) basic joining words whose parts are not closely related, meaning that they are not considered one word, are written separately.

**Third**, not all students are able to write speech texts based on aspects of diction accuracy. Overall, students are classified as capable of diction accuracy, it is known that as many as 14 students in the capable category, while students in the poor category as many as (4 students).

Diction is word choice. Word choice is the activity of choosing the right words when writing so that it expresses the intent and purpose to the listener or reader, both orally and in writing. In (Arifin, 2017) states that in choosing the right word to express an intention, a dictionary is needed. Therefore, the writer must know the meaning of a word before using it in a sentence or statement.

**Fourth**, the results of this study show that students are quite capable in writing speech texts based on sentence effectiveness. In writing a speech text, the sentence written must be effective, from this research it is known that there are (9 students) who can write effective sentences in writing speech texts and (9 students) are classified as lacking in writing effective sentences in speech texts.

**Fifth**, overall the results of this study were categorized as quite capable of writing speech texts as a whole. It is known that there are 12 students who can write a complete speech text that meets the structure of the speech text, spelling, diction and sentence effectiveness. Students' ability to write can be influenced also through external factors, students' daily lives or the environment students often listen to lectures / speeches, so students have memories of what they listen to so it is easy to think about their ideas.

As explained by (Kusmana, 2020) this internal factor is a factor that is contained within the students themselves. However, this factor is further divided into two, namely Physiological and Psychological. Students' language skills can be influenced by psychological (psychic) and physical (articulatory organs and brain) factors. If a student has psychological problems or physical disorders (obstacles in the articulation organs and brain) it will cause inappropriate language skills.

While external factors consist of several indicators, including family factors, school environmental factors, and community factors. From this statement, of course, the process of learning to write speech texts is greatly influenced. The school environment in this study is in the form of an Islamic boarding school environment as we know that students who live in Islamic boarding schools will focus on learning that is yellow book, etc., thus school learning is slightly neglected.



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Figure 1. Research Process

### IV. CONCLUSION

Based on the objectives, results, and discussion, it can be concluded:

- A.** The ability of class XI students in writing speech texts based on aspects of the structure of the text in the form of: introduction, content, closing concluded that students were classified as capable.
- B.** The ability of class XI students in writing speech texts based on aspects of spelling and punctuation. It can be concluded that these students are less able to use correct spelling and punctuation, there are 10 students who still use spelling and punctuation incorrectly.
- C.** The ability of class XI students in writing speech texts is based on the aspect of diction. From the research that has been done, it can be concluded that the students are classified as capable of choosing words/diction. It can be seen that as many as 14 students can choose words well, and 4 students still make a lot of mistakes in using words.
- D.** The ability of class XI students in writing speech texts is based on the aspect of sentence effectiveness. The results of this study indicate that the ability of students to compose effective sentences is quite capable, but there are still students who use sentences that are difficult to understand, use incomplete sentences in the closing part, in sentences written by students many words are abbreviated.
- E.** Based on the research findings, the overall class XI students are quite capable in writing speech texts, it is known that as many as 12 students and 6 students cannot write speech texts in their entirety.

### REFERENCES

- 1) Andik, S. &. (2020). Application of Project Base Learning in an Effort to Improve the Ability to Write Javanese Speech Texts for Class IX E SMP Negeri 1 Gondong Mojokerto for the 2019/2020 Academic Year. *Pedagogy*, 1(57).
- 2) Arifin, Z. (2017). *Curriculum Development Concepts and Models*. Bandung: PT Pemuda Rosdakarya.
- 3) Budiyo, H. (2012). *Learning Writing Skills Based On The Writing Process And Language Acquisition Theory*. Pen, 2

## “Ability to Write Speech Texts for Class XI Madrasah Aliyah Students”

- 4) Dede Sukanah, Galih Dani Septiyan Rahayu. (2021). Inquiry Learning Method in Improving Speech Text Writing Ability. *Journal of Elementary Education*. 4(1). 134-141
- 5) Hardani, d. (2020). *Qualitative & Quantitative Research Methods*. Yogyakarta: Pustaka Ilmu Group.
- 6) Kusumana, A. (2020). Deviant Language Behavior in Learners. *Educational Lantern*, 1(5)
- 7) Noriyani, E. Y. (2017). The Relationship Between Writing Habits And The Ability To Write Speech Texts In Indonesian Language Learning Class X Sma Negeri 1 Belitang. *Kansas*, 2(9)
- 8) Rahayu, D. S. (2021). Inquiry Learning Method in Improving Speech Text Writing Ability. *Collage*, 1.
- 9) Sari, N. T., & Siti, M. (2017). The Effect of the Round Robin Cooperative Learning Method on the Achievement of High School Indonesian Students. *Ecopsy Journal*, 4(26).
- 10) Siddik, M. (2016). *Basic Basics of Writing*. Malang: Tunggal Mandiri Publishing.
- 11) Sugiyono. (2013). *Understanding Qualitative Research*. Bandung: Alfabeta.
- 12) Sumadi Suryabrata. (2013). *Research methodology*. Jakarta : PT. King of Grafindo
- 13) Persada. Syarif, E. D. (2009). *Writing Learning*. Jakarta: Ministry of Social Education.
- 14) Suprihatin, Budhi Setiawan, and Atikah Anindyarini. (2017). Ability to Write Speech Texts (Case Study at SMA Muhammadiyah 1 Karanganyar). *BASASTRA Journal of Research on Indonesian Language, Literature and Teaching*, 5(2), 143-262
- 15) Wati, R. P. (2014). Ability to Write Speech Texts for Class X State Senior High School 12 Padang Assisted by Audio Media with
- 16) Writing Outline Technique. *Indonesian Language Education*, 4(2)



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## Public Opinion as a Driving Force for the Well-Being of Society



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**ABSTRACT:** Public opinion can serve the development and sustainable development of any state. However, a scientific approach to its proper organization, formation and management will lead to success. The article deals with the essence, structure, role of public opinion as a social institution.

**KEYWORDS:** Society, public opinion, Gellap institute, component, rational component, emotional component, will component.

### INTRODUCTION

The content of the concept of public opinion represents the unity of the individual attitude of a social group, stratum, in general, to a particular event, and this attitude has a degree of influence on the social process in society. "Community is an ancient form of human association. In this case, the means of production are everyone's property. Society, on the other hand, is a set of historically determined collaborative activities of people. Public opinion, on the other hand, is formed in the minds of the masses in society, in the processes in which socio-economic relations exist. Public opinion is a form of public consciousness that includes covert or overt attitudes toward social events, the activities of various groups, organizations, and individuals, and is expressed in the approval or condemnation of certain social issues. "Public opinion is inspired by the spirit of the times. "The activity and importance of public opinion is determined by the structural nature of society, the level of development of productive forces, culture, democratic legal norms and freedoms" [1. 192-200]. The degree to which the opportunities given to public opinion in the period are properly organized will cause public opinion to move in such a right direction that it will not serve to destabilize the state and the people. From this point of view, it is expedient to take a scientific approach to the organization and management of public opinion, with the integration of theoretical and practical knowledge into practice.

### THE MAIN FINDINGS AND RESULTS

"The study of public opinion using the potential of science (*hypothesis, modeling, idealization, abstraction, generalization of theoretical knowledge*) allows, firstly, to organize, managed and controls the system of public opinion in the interests of society" [2. 20].

The roots of the technique of organizing and managing public opinion are rooted in the development of society and polished as a result of their improvement. At different stages of human development, the essence of the socio-political, economic, spiritual, educational and cultural issues of a particular country is expressed on the basis of public opinion.

Public opinion has a clear or implicit attitude of society to events and processes that reflect reality. The subject of social thought is communities, and the object is an event or phenomena, social facts, which can have both positive and negative meanings.

"Public opinion is a unique manifestation of public consciousness, in which social groups, classes, and people in general, are formed in a spiritually complex way, representing the actual problems of reality (verbal or non-verbal) evaluator attitude" [3. 116].

"The concept of public opinion is a concept that has been evolving over time, and it is important because it has been reflected in different views at different times":

– As a result of the formation of seed communities, major changes in the development of productive forces, changes in the organizational nature of society, public opinion began to take a relatively independent view as a social phenomenon. During this period, public opinion was mainly of an evaluative nature.

– The development of culture during the period of slavery and the division of society into classes revealed new qualities in the history of public opinion. During this period, the exchange of social structures led to sharp contradictions within social

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thought. That is, the conservative is in favor of maintaining the seed relationship out of self-interest, and is increasingly opposed to any innovation in development. During this period, the first manipulation of public opinion - the spiritual-ideological thought - emerged.

– During the period of feudal land ownership, the position of public opinion increased somewhat. Because now the idea of the “lower” category has expanded and become more active. On the one hand, in the development of “everything is from God” and other similar beliefs, on the other hand, the formation of traditions, customs, culture of the people played an important role.

– The period of capital production is considered to be the beginning of the theoretical substantiation and study of public opinion [4].

Although public opinion has existed in all historical periods, the term originated in England in the twelfth century and represents a literal translation of the two phrases “public opinion”. It was first used by John Salisbury in “Polycratic”. From England, the term began to spread to other countries and was generally accepted in the late 18th century.

The beginning of the theoretical study of public opinion is associated with the name of the French sociologist Gabriel Tard. In *Thought and the Crowd*, G. Tard made an in-depth analysis of the characteristics of psychological processes in large groups. In particular, he justified the emergence and spread of public opinion by the action of the imitation mechanism [5].

Public opinion influences social control over the observance, interpretation and application of the rule of law in accordance with public legal guidelines that reflect the needs and interests of the people.

It is a fact that it is already clear today that a democratic society cannot implement the norms of social law only by state coercion. In this regard, the organization and management of public opinion plays an important role in the realization of the interests of society, the development of the state. There are three main aspects that need to be considered in order for public opinion to serve the interests of the state and society. First, the proper organization of public opinion will serve to strengthen public control over government agencies, to prevent the spread of negative vices in government agencies, such as indifference, corruption, abuse of office, acquaintanceship, and, consequently, to achieve the rule of law and accelerate development. This, in turn, leads to the formation of a strong civil society.

On the other hand, the correct and *fair control* of public opinion is aimed at ensuring that the forces that propagate destructive ideas with different interests and goals in the state and society do not ensnare the simple and innocent people, and that foreign ideas do not interfere with the peaceful and prosperous life of the population.

The third aspect is the *management* of public opinion, which is aimed at inculcating national and universal values in society, especially among young people, their implementation, development of human capital, public understanding of public policy.

One of the main reasons for the study of public opinion on a scientific basis is that public opinion is by its nature both a social and psychological phenomenon, subject to the emotional and emotional reflection of reality. It can therefore be spontaneous, unstable, inadequate, critical, moody, and manipulative.

People work side by side for many years in a team, work in the same direction, spend almost the same amount of time solving life's problems, close economic and social situation, their intellectual and spiritual levels, emotional states and even aesthetic tastes, interests and aspirations provide commonality. A strong public opinion about a particular event plays an important role in strengthening or strengthening the views of the community and outsiders [6. 173-174].

The essence, structure, role and place of public opinion in society, its social functions can be studied through sociological analysis.

Public opinion encompasses the subject's relation to the object and the subject's relation to the subject according to its structure. This attitude most generally represents the value-based evaluator's views and (or) the will that arises as a result, i.e., position. This position can be expressed *positively, negatively, neutrally*, or not at all. However, this neutral or non-existent attitude is of great importance, and timely attention to it can eliminate the risk that negative ideas will lead to destructive processes in the future.

“Currently, almost all developed and fast-growing countries of the world study the social acceptability of their strategies through sociological research, their compatibility with public opinion, the logic of tactical changes before and during the implementation of important issues and draw appropriate conclusions.

In this regard, the famous Gallup Institute in the US, the British Sociological Association in England, the French Association of Sociology, the Russian Sociological Society and others have a great social role in society. In particular, the Gallup Institute constantly informs the public about the daily mood of the American population, the social, financial and political situation that awaits them in the near and medium term. The organization also assesses the state of political consent of various segments of the population, the level of satisfaction with the work of heads of state, trends in changing the social goals of the

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population. The social value of the society is very high, especially in the process of voting for candidates during the presidential election, in terms of very accurate forecasting of the indicators of the selection of candidates by the electorate. For example, the Gallup Institute has scientifically and empirically predicted that black Obama, a violent Trump by nature, and Biden, who is much older, will inevitably win a week before the election" [7].

In this sense, in order for public opinion to become a social force as a social institution, it is necessary not only from an "external" point of view (civil liberties, media, political pluralism, leaders, etc.) but also from an "internal" point of view (symbols, stereotypes, complexes, means of meaning and expression) [8].

The basis of public opinion is knowledge of the object. Without it, it is impossible to appear. The formation of public opinion occurs under the influence of several components. These are:

- Rational;
- Emotional;
- Will.

In public opinion, the rational component of value reasoning is shaped by several factors. In particular,

- *development of specialized and daily information about the object;*
- *compare this information with their knowledge and ideas every day;*
- *logical reasoning (more or less, regular or irregular) and analysis of the impact of the object on this information, based on their knowledge and worldview;*
- *comparison of opinions, arguments on the realization of their interests*

on the basis of which public opinion is formed.

It should be noted that not only knowledge, but also belief is a factor that rationally affects the direction of the subject's opinion.

The intellectual field of the structure of the considered phenomenon can also include visual-figurative knowledge which helps in formation of imagination and object assessment (evaluative attitude) in the absence of theoretical knowledge and social experience in the subject.

The degree of expression of the rational component in the subject depends primarily on the upbringing of the subject, the state of formation, awareness of the characteristics of the object and the influence of the psychological environment.

In addition to the rational component, the emotional component also plays a key role in shaping public opinion. The emotional component is the emotions, experiences, moods that are formed in society on current socially significant events.

The emotional component of public opinion refers to the events that make up the content of the experiences of community (or community) members, public emotions, public mood, and some other socio-psychological formations. This component increases the level of seriousness and intensity of public opinion. While the emotional component sometimes serves as an impulse to express public opinion, it also allows for self-manipulation through psychological pressure. Therefore, the presence of rational and emotional components, the high intellectual and scientific potential of society, the high level of spirituality will lead to the formation of public opinion in a direction that serves the interests of the state and the people. Otherwise, as the great scholar Abu Rayhan al-Biruni said, "The nature of the common people is limited to what is perceived by intuition, and is satisfied with the branches that come from the foundation, and does not want the foundation to be examined" [9].

The volitional component of public opinion characterizes the social assessment and the practical expression of the subject's attitude towards the realization of the interests associated with the object. This component reflects the spiritual and practical aspects of the nature of the event being analyzed. For a variety of reasons and factors, the will component may be poorly expressed or not expressed at all. Or, conversely, with the help of this component of influence, the subject demonstrates its attitude, interests in mass actions, political acts [10].

All of these components complement each other and gain practical integrity in shaping public opinion. It is important to pay attention to the *scientific and socio-legal* basis in directing public opinion in the interests of the state and society.

The study of public opinion on a *scientific* basis helps to correctly diagnose the subject-object relationship and, as a result, to correctly identify future tasks. Of course, our world and local scientists have conducted scientific research on the essence, formation, organization and management theory and practice of public opinion. However, in the current era of globalization and technological advancement, there is a need to study this topic in the spirit of the new age. Indeed, in societies of the age of science and technology, public opinion is changing along with individuals.

Strengthening its positive *socio-legal* role in directing public opinion in the interests of the state and society is also of great importance. In order to strengthen the positive socio-legal role of public opinion, it is necessary to pay attention to the following:

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- to study the features of its impact on the implementation of social law;
- Analysis of the principles of accounting, the conditions of its application in the application of the legislation, the aspects that can strengthen the impact of public opinion on law enforcement activities;
- it is necessary to consider the conditions under which the restriction is necessary.

### CONCLUSION

In conclusion, public opinion can serve the development and sustainable development of any state. However, for this to happen, the state and society must feel responsible for its proper organization, formation and management, and pay attention to this on a scientific and legal basis.

### REFERENCES

- 1) Abduraxmonova M. The need to study public opinion to make effective decisions in schools. Journal of Social Research. 1 special issue. –p. 192-200.
- 2) Yazdonov U. The functional importance of organizing, managing and controlling public opinion. Monograph. Samarkand, SAMDU Publishing House, 2020.
- 3) Podruchnyy M. Obshchestvennoe opinion as a social institute. Trudy BGTU, 2020, series 6, №2, -p.116.
- 4) Yazdonov U. Public opinion and social development. XIX International scientific-practical Internet conference. 2014y. <http://oldconf.neasmo.org.ua/node/2367>.
- 5) Tard G. Obshchestvennoe opinion i tolpa. M., URSS Publishing House. 2015.
- 6) Bekmurodov M. et al. Sociology. Study guide. T., 2002, -pp. 173-174.
- 7) Bekmurodov M. About the science of human dignity or the barometer of society. New Uzbekistan newspaper. № 50 (572), March 10, 2022.
- 8) Levada Yu.A. Ot mneniy k ponimaniyu: sotsiologicheskie ocherki 1993-2000. - M., 2000. - p. 136-137.
- 9) Abu Rayhan Beruni: 100 Wisdom. T., "Fan," 1993, p.14.
- 10) Selkova E.P. Sociology of public opinion. Study guide. Blagoveshchensk. AmGU Publishing House. 2011, -pp. 35-37.



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## Calculation of Basalt Fiber Reinforced Concrete Beams for Strength



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**ABSTRACT:** In the scientific research work, theoretical research work on flexible fiber reinforced concrete beams made with the addition of basalt fibers was carried out. The results of theoretical studies show that the values of the ultimate bending moment in fiber reinforced concrete beams were found to be relatively higher than the values of the bending moment in ordinary beams.

**KEYWORDS:** basalt fiber, fiber reinforced concrete, beam, strength, rebar, deflection

### 1. INTRODUCTION

Fiber concrete is a composite material that contains fibers in a cement matrix with an orderly or random distribution. The strength properties of fibrous concrete undoubtedly depend on the type of fiber, fiber geometry, fiber composition, fiber direction and distribution, shape and size of large and fine aggregates. Fiberreinforced concrete improves properties due to fibers.

The world's first patent for fiber reinforced concrete structures was awarded to Russian scientist V.P.Nekrasov obtained in 1909 and extensive development of scientific research on fiber concrete, the development of methods for calculating the structures made of it was carried out in the 60s of the twentieth century. The first large-scale application of fiber reinforced concrete in practice began in 1976 with the construction of runways in Russia. However, at that time, this material was not widely used, because the technology of preparation of fiber reinforced concrete and fiber reinforced concrete itself was not perfect [1].

There are many types of fiber concrete products used in various industries. Scientists from Austria, Australia, Belgium, Germany, the Netherlands, Spain, Canada, China, Poland, the United States, France, the Czech Republic, Switzerland, South Africa, Japan and other countries have made significant contributions to the development of fiber concrete, including Shen X., Singha K., Zhang J., Zhang X., Kudyakov K., Nihal L.P., Shiping Li, Yibei Zhang, Wujun Chen and other scholars deserve special mention [2, 3, 4, 5, 6].

The study and analysis of scientific research on the strength, tensile strength, and deformation of flexible fibrous concrete elements based on basalt fibers have shown that to date, experimental and theoretical data in this area have been collected in foreign countries. However, despite the advantages of basalt material and the positive results obtained during many studies, and the practical experience of experimental projects, basalt fiber is not widely used in reinforced-concrete construction [7].

### 2. RESEARCH METHODOLOGY

Calculation of strength under the influence of bending moment and longitudinal force of elements of fiber concrete structures is carried out on the normal section relative to the longitudinal axis. When calculating the load-bearing capacity of working reinforcement elements on the normal cross-section, the limit loads that can be accepted by fiber concrete and reinforcement in the normal section are determined based on the following cases:

- it is obtained in the form of residual stresses in which the tensile resistance of fiber concrete is equal to  $R_{fbt2}$  or  $R_{fbt3}$  and evenly distributed in the elongation zone of fiber concrete;

- it is obtained in the form of stress in which the compressive strength of fiber concrete is equal to  $R_{fb}$  and evenly distributed in the compressive zone of fiber concrete;

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- deformation (stress) in the rebar is determined depending on the height of the compression zone of the fiber concrete;

- the tensile stress in rebar is assumed to be no greater than the calculated resistance  $R_s$  in elongation;

- the compressive stress in the rebar is assumed to be greater than the calculated resistance  $R_{sc}$  in compression.

The normal cross-sectional strength of reinforced concrete elements is calculated based on the ratio of the relative

height of the compressive zone  $\xi = \frac{x}{h_0}$  to the boundary value of the relative height of the compressive zone in the boundary

position of the resulting element when the elongated reinforcement stress is equal to  $R_s$ . The value of is determined by the following formula:

$$\xi_R = \frac{x_R}{h_0} = \frac{\omega}{1 + \frac{\varepsilon_s}{\varepsilon_{fb2}}} \quad (1)$$

where:  $\omega$  - the characteristic of the compressive zone of fiber concrete; 0.8 for heavy fiber concrete up to class B60 and 0.7 for heavy fiber concrete and fine aggregate concrete class B70-B100;

$\varepsilon_s$  - the calculated value of the acceptable limit relative deformation of the reinforcement according to DR63.13330

$\varepsilon_{fb2}$  - Relative deformation of compressive fiber beton at  $R_{fb}$  stress; its value is assumed to be equal to the value given in DR63.13330 for ordinary concrete.

The cross-sectional strength of flexible elements is calculated on the basis of the following condition:

$$M \leq M_{ult} \quad (2)$$

where:  $M$  is the bending moment generated by the external load;

$M_{ult}$  - the ultimate bending moment that can be accepted by a section of an element

The value of  $M_{ult}$  in right-angled fiber-reinforced concrete elements is determined by the following formula[8].

$$\sum M = 0$$

$$M_{ult} + R_{fbt3} \cdot b \cdot (h - x) \cdot \left(\frac{h-x}{2} - a\right) - R_{sc} \cdot A'_s (h_0 - a') - R_{fb} \cdot b \cdot x \cdot (h_0 - 0,5x) = 0$$

$$M_{ult} = R_{fb} \cdot b \cdot x \cdot (h_0 - 0,5x) - R_{fbt3} \cdot b \cdot (h - x) \cdot \left(\frac{h-x}{2} - a\right) + R_{sc} \cdot A'_s (h_0 - a') \quad (3)$$

In this case, the height of the compression zone is determined by the following formula:

$$\sum F_{kx} = 0$$

$$R_s \cdot A_s + R_{fbt3} \cdot b(h - x) - R_{sc} \cdot A'_s - R_{fb} \cdot bx = 0$$

$$x = \frac{R_s \cdot A_s - R_{sc} \cdot A'_s + R_{fbt3} \cdot b \cdot h}{(R_{fb} + R_{fbt3}) \cdot b} \quad (4)$$

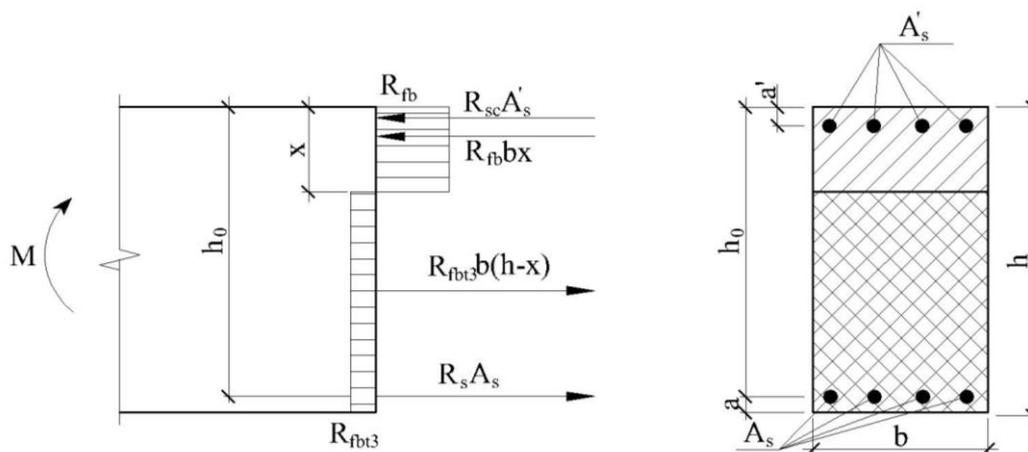


Figure 1. Diagram of forces and stress diagram in a section normal to the longitudinal axis of a bent fiber-reinforced concrete element of rectangular section with reinforcement, when calculating its strength.

### Calculation of Basalt Fiber Reinforced Concrete Beams for Strength

In the initial stages of loading on the beams, the amount of stress in the concrete and reinforcement is almost not large, in which case the deformation is in an elastic state. As the load increases, the amount of stress in the elongated zone of the concrete reaches the limit value of elongation. But the concrete does not crack. Plastic deformations occur on the stretched lower surfaces of the concrete, the deformation in these layers being equal to the tensile strength of the concrete.

In this case, as the load increases, the elongated zone of the concrete breaks at the end of the deformation index. As a result, cracks are formed and a new condition on the cutting surface of the element. Once the cracks are formed, the reinforcement accepts the tension in the elongation of the cracked cutting surface, and between the cracks, the connection to the concrete is not broken and the concrete continues to work on elongation, giving the reinforcement a little more tension.

The process of breaking down reinforced concrete takes place over a very short period of time during the test period. With the onset of the flexibility of the reinforcement, deformation begins, resulting in increased bending, and as the crack increases, the height of the compressed part of the concrete cutting surface decreases. Plastic deformation occurs in the compressed zone of the concrete over the cracks. Deformation begins with the crushing of concrete in the compacted zone. In this case, the compressed zone diagram is close to the appearance of a parabola. The cracks in the elongation zone enlarge, the beam stiffness decreases, and the slope increases rapidly, breaking the beam.

The breakdown of normally reinforced reinforced concrete elements begins with elongated reinforcement. When the stress in the reinforcement reaches the leakage limit, the height of the concrete compression zone decreases sharply, which causes the concrete to collapse. In beams with a large number of tensile reinforcement, the collapse begins with the concrete in the compression zone, where the stress in the reinforcement is much smaller than the flow limit. This is definitely the opposite of saving[4-10].

Once the sample beams are loaded, in the initial stages of loading, the concrete and reinforcement work elastically, with no cracks appearing in them. The amount of stresses in concrete and reinforcement is small and inelastic deformations do not develop. As the number of loads increases, the stresses in the concrete in the elongated area of the beams reach their calculated resistance to elongation and the initial cracks appear. From this point on, the qualitatively different stress-strain state begins in the sample beams, and a redistribution of stresses in the concrete and reinforcement is observed. When the first cracks are formed, the concrete almost loses its resistance in the elongated area, and the reinforcement of the concrete is observed only in the areas between the cracks and the reinforcement.

### 3. THE RESEARCH FINDINGS AND DISCUSSION

The results of the ultimate moment obtained on the basis of theoretical calculations of ordinary and fiber-reinforced concrete beams are shown in Table 1.

**Table 1. The ultimate moment determined by the calculation of the sample beams**

No	Fiber length, mm	Fiber dosage,%	R <sub>b</sub> , МПа	R <sub>fbt3</sub> , МПа	$M_{ult}^x$ , кН·м	difference
1	-	-	25,8	-	13,56	-
2	10	0,1	28,7	1,12	15,29	+12,80
3	10	0,2	29,8	1,18	15,41	+13,70
4	10	0,3	28,3	1,05	15,18	+11,97
5	30	0,1	28,9	1,10	15,27	+12,64
6	30	0,2	30,4	1,27	15,56	+14,79
7	30	0,3	28,1	0,92	14,98	+10,53

The experimental results of without basalt fiber reinforced concrete beams and fiber reinforced concrete beams dispersed with basalt fibers were compared with the results of theoretical calculations.

The results of theoretical and experimental tests on fiber-reinforced concrete and ordinary reinforced concrete beams reinforced with basalt fibers are shown in Figures 2-4.

## Calculation of Basalt Fiber Reinforced Concrete Beams for Strength

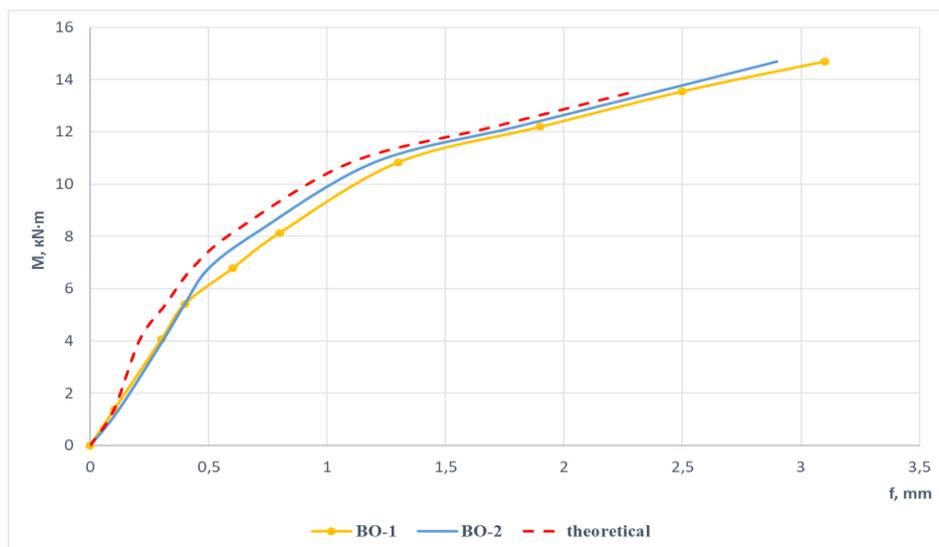


Figure 2. Graph of the dependence of the bending moment on the deflection of the I-series sample beams

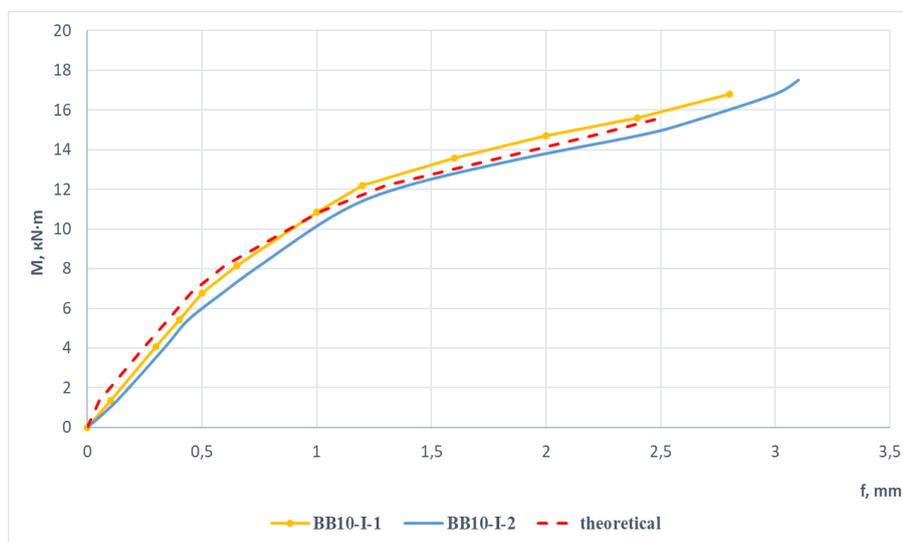


Figure 3. Graph of the dependence of the bending moment on the deflection of the II-series sample beams

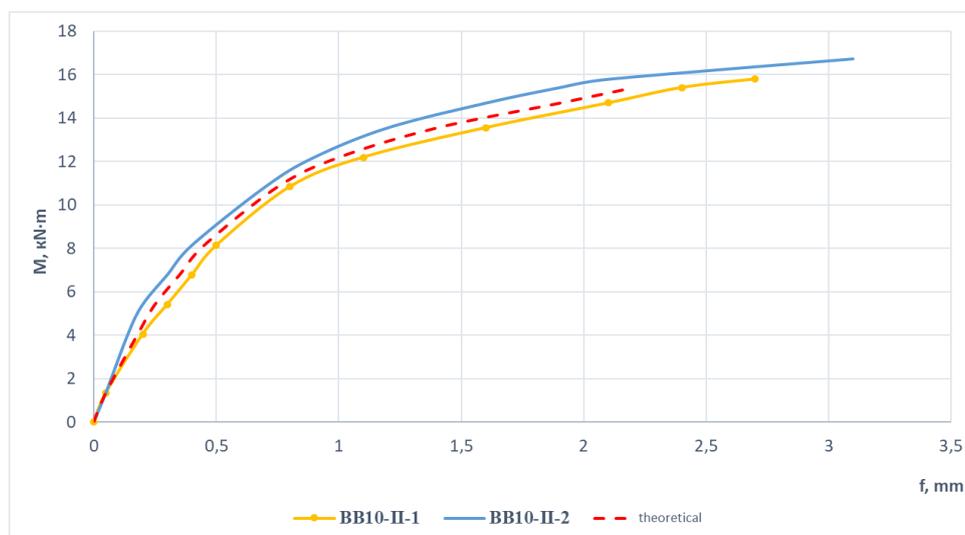


Figure 4. Graph of the dependence of the bending moment on the deflection of the III-series sample beams

The results of experimental and theoretical studies show that the values of the ultimate bending moment in fiber reinforced concrete beams are relatively high than the values of the bending moment in ordinary beams.

## Calculation of Basalt Fiber Reinforced Concrete Beams for Strength

### 4. CONCLUSIONS

1. According to the results of theoretical calculations, the value of the ultimate moment in the beams without the addition of basalt fibers was 13.56 kN·m. The value of breaking moment in flexible fiber reinforced concrete beams made by adding 0.1% of basalt fibers with a length of 10 mm was 15.29 kN·m. The value of ultimate moment increased by 12.80% compared to ordinary reinforced concrete beams.
2. The value of ultimate moment in flexible fiber reinforced concrete beams made by adding basalt fibers with a length of 10 mm in the amount of 0.2 and 0.3% was 15.41 kN·m and 15.18 kN·m, respectively.
3. In fiber reinforced concrete beams with a content of 0.1% and a length of 30 mm, the value of the ultimate moment is 15.27 kN·m, the value of the ultimate moment is 15.56 kN·m, the amount of fibers is 0.3%, the value of the ultimate moment was 14.98 kN·m. It was found that the values of the ultimate moment increased by 10-15% compared to the values of the ultimate moment in ordinary beams.

### REFERENCES

- 1) Li, S., Zhang, Y., & Chen, W. (2020). Bending performance of unbonded prestressed basalt fiber recycled concrete beams. *Engineering Structures*, 221, 110937.
- 2) Jin, S., Zhang, X., Zhang, J., & Shen, X. (2016, May). Experimental study on anti-splitting tensile properties of the chopped basalt fiber reinforced concrete. In *International Forum on Energy, Environment and Sustainable Development* (pp. 282-289).
- 3) Raj, S., Gopinath, S., & Iyer, N. R. (2013). Compressive behavior of basalt fiber reinforced composite. In *Proc. of the Intl. Conf. on Advances in Civil, Structural and Mechanical Engineering, CSM*.
- 4) Krassowska, J., & Lapko, A. (2013). The influence of steel and basalt fibers on the shear and flexural capacity of reinforced concrete beams. *Journal of Civil Engineering and Architecture*, 7(7), 789.
- 5) Kizilkanat, A. B., Kabay, N., Akyüncü, V., Chowdhury, S., & Akça, A. H. (2015). Mechanical properties and fracture behavior of basalt and glass fiber reinforced concrete: An experimental study. *Construction and Building Materials*, 100, 218-224.
- 6) Alsayed, S. H. (1993). Flexural deflection of reinforced fibrous concrete beams. *Structural Journal*, 90(1), 72-76.
- 7) Scholar, P. G. (2017). Flexural Behaviour of Basalt Chopped Strands Fibre Reinforced Concrete Beams. *International Journal of Engineering Science*, 5497.
- 8) Gvazdeva A.A., (2017) "Fiber reinforced concrete structures and precast products with non-steel fibers" Design rules, DR297.1325800.2017
- 9) [9] RAZZAKOV S. J. Research of stress-strain state of single-storey buildings with internal partitions under static pulling load of the upper belt of a structure // *Structural Mechanics of Engineering Constructions and Buildings*. – 2016. – №. 6. – C. 14-19.
- 10) Razzakov S. Zh., Zhuraev B. G., Zhuraev E. S. U. Stability of the walls of individual residential houses with a wooden frame. - 2018. - T. 14. - No. 5.
- 11) Razzakov S. Zh., Kholmiraev S. A., Ugli B. M. Calculation of the forces of cracking of compressed reinforced concrete elements in a dry hot climate // *Symbol of Science*. – 2015. – no. 3. - S. 57-60.
- 12) Razzakov S. Zh., Ilyina L. V., Kholmiraev S. A. Temperature deformations of concrete in a dry hot climate // *Proceedings of the Novosibirsk State University of Architecture and Civil Engineering (Sibstrin)*. - 2018. - T. 21. - No. 3. - S. 22-30.
- 13) Razzakov S. Zh., Kholmiraev S. A. Influence of frame reinforcement on the stress-strain state of a two-story building made of low-strength materials. – 2017. – no. 4. - S. 43-49.
- 14) Razzakov S. J. et al. Stretching curved wooden frame-type elements "Sinch" // *European science review*. – 2017. – no. 1-2. – S. 223-225.
- 15) Abdurakhmonov S. E., Martazaev A. Sh., Eshonjonov Zh. B. Cracks in reinforced concrete products during their manufacture in a non-stationary climate // *Bulletin of Science and Creativity*. – 2017. – no. 2. - S. 6-8.
- 16) Nasriddinov M. M., Martazaev A. Sh., Vakkasov Kh. S. Crack resistance and strength of inclined sections of bent concrete elements on porous aggregates from loess-like loams and TPP ash // *Symbol of Science*. – 2016. – no. 1-2. - S. 85-87.
- 17) Abdurakhmonov S. E. et al. Crack formation and water separation of concrete mixture in reinforced concrete products during manufacture in areas with a hot climate // *Bulletin of Science and Creativity*. – 2018. – no. 2. - S. 35-37.
- 18) Martazaev A. Sh., Eshonjonov Zh. B. Issues of calculation of bending elements along inclined sections // *Bulletin of Science and Creativity*. – 2017. – no. 2 (14). - S. 123-126.

## Calculation of Basalt Fiber Reinforced Concrete Beams for Strength

- 19) Juraevich R. S., Shukirillayevich M. A. Mechanical properties of basalt fiber concrete.
- 20) Juraevich R. S., Shukirillayevich M. A. The Effect of the Length and Amount of Basalt Fiber on the Properties of Concrete //Design Engineering. - 2021. - S. 11076-11084.
- 21) Shukurillaeich M. A. et al. CHECKING THE BEARING CAPACITY OF BENDING REINFORCED CONCRETE PRODUCTS ON AN INCLINED SECTION //ScienceTime. – 2018. – no. 6 (54). - S. 42-44.
- 22) I. Kh. – 2017. – no. 3. - S. 350-352.
- 23) Martazaev A. Sh., Fozilov O. K., Nosirzhonov N. R. Significance of calculations of static and dynamic impact of land dams // Innovative science. – 2016. – no. 5-2 (17). - S. 132-133.



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## The Symbol of Perfection in Bedil's Creation

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**ABSTRACT:** Mirza Abdulkadir Bedil (1644-1720) is a poet, writer, philosopher and thinker, very popular among the people of Central Asia who laid the foundation for the development of literary-philosophical ideas, and as a result of relying on the achievements of the past, Bedil strengthened his philosophical thought.

Bedil's rise to human status is due to his belief in the teachings of mysticism. The status of the perfect man in the way of understanding the absolute truth occupies a very high place in his creation. Even today, Bedil's work remains a guide for young people and fans of literature, science and wisdom in the study of the history of spiritual thinking, especially mystical, moral and aesthetic ideas.

**KEYWORDS:** Bedil, man, perfect, gnosis, philosophy, wisdom.

### INTRODUCTION

Interest in classical heritage is being revived all over the world, and Mirza Abdulkadir Bedil, a 17th-18th century thinker and historian of literature, has a special place in the Persian-speaking culture of India, which crosses Indian and Muslim spiritual values. Bedil's worldview is based on the doctrine of the unity of mysticism, he sees the universe as a mirror of God and the human heart as the center of this mirror. The more polished the human heart, the more it reflects the light of Allah. That is why Man is great and powerful. But for that, he says, he needs to reach perfection and understand himself. According to Bedil, the establishment of peace is the most important condition for the formation of the Perfect Man, so this idea and concept is of constant importance.

The study of Bedil's work is connected with the need to creatively master the achievements of philosophical, religious, moral, aesthetic thinking of civilization in those centuries. In the example of Bedil, it will be possible to better imagine the interaction of Indian and Islamic, Indian and Persian spiritual traditions. They contribute to the formation of a sense of religious tolerance, the establishment of joint creativity and peace, and mutual trust between different peoples.

Bedil glorified the power of the human mind, the power of science, promoted the idea of progress and believed that the development of natural science and philosophy was necessary to achieve it. When a person sings, he also seeks ways to make him perfect.

### METHODS

The article focuses more on literary and artistic-philosophical analysis.

### RESULTS AND CONSIDERATIONS

One of the main issues to be considered in Bedil's philosophy is the idea of the Perfect Man and his position in social life. The purpose of the philosopher-poet Mirzo Bedil to talk about man, his virtues and shortcomings are to call people to goodness, to teach them, to make man perfect, to discredit evil. For Bedil, the human problem is the most cherished, memorable, and honourable subject. That is why he speaks about it in his book "Irfon". He considers man to be the highest being, regardless of race, nationality or religion, and honours him as "Hazratiinson":

*To'rt dahr aro sen hayratli bir bob,  
Yetti bahr ichra gavharin oyob.  
Har narsagakim, yetibdi aql,  
Undan afzalsan, buni yaxshi bil.*

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*Dunyo mevasini hosildorisan*

*Barchasidan ham shirinkorisan [1].*

Bedil teaches the need to love man, respect human beings, and see humanity as an important aspect of perfection. He is close to Aziz al-Din al-Nasafi in his interpretation of this idea [2].

When a person is born, he has to get to know himself, Bedil says. Because the most intelligent and conscious being among all beings in the world is the man. According to Bedil, the perfection and perfection of man is in the unity, proportion and harmony of his biological-physiological (physical) and social, spiritual, mental powers.

According to the thinker, the major factor that determines the biological and physiological nature of man is the physical strength, nutrition and labor associated with the material world.

The thinker connects the social, spiritual essence of man with his attitude to science and wisdom because Bedil describes man as a creature who knows the science of existence, who absorbs the wisdom of God. While Bedil connects the mental nature of man with the acquisition of knowledge, he looks with pity at those who have strayed from this path. It also emphasizes science as a means of giving eternity to human life:

*Hayfi inson, kibo chunin ʻavhar,*

*Sar kunad gʻayri ilm rohi digar [3].*

It is a pity and a pity if a person with such a divine core engages in something other than science. The thinker emphasizes that the blessing of physical labor is also with knowledge by calling on every representative of the field to gain knowledge. The thinker says that science is the trainer of the soul, purifying the soul and giving it to the absolute guardian of the soul:

*. Har ki sham'ash zi ilm dargirad,*

*To abad dog'i marg napazirad*

*Partavi ilm durboshi fanost,*

*Subh to ravshan ast, shom kuchost? [3]*

He whose candle is lit with knowledge will not see the stain of death forever and ever. The light of knowledge is the driver of non-existence, as long as the morning is bright and the evening is not. It also promotes man's love and faith in God in the spiritual essence that determines human perfection. Faith also enjoys spiritual power. It is no exaggeration to say that this process begins with the realization of one's own existence because as one realizes oneself, one seeks to understand God. Eventually, man's love for God will increase. The ascension of divine love is a decisive stage in the spiritual maturity of man, for a man is purified in the way of divine love, his spiritual maturity, his moral virtue, rises. In human behavior, the desire to rise to higher ranks in the pursuit of science increases.

Mirza Bedil argues that perfection is also self-knowledge. According to the teachings of the philosopher, the main goal of man is to achieve perfection. He expresses this idea as follows:

*Chin kamolot ixtiyor qilmoqchiman,*

*Ya'ni yo'qlik oshkor qilmoqchiman*

*Ko'p chigal borliq o'rish – arqoqlari,*

*Men nafas-la tor-mor qilmoqchiman [4. 22]*

In the above verses, the thinker puts forward the concept of non-existence, the idea of eliminating non-existence, through the attainment of perfection. As we understand it, the philosopher here refers to the scientific and spiritual maturity of man over his eternity, his conquest of death and non-existence.

Mirza Bedil considers perfection first in his knowledge of the mysteries of the universe and in overcoming the pressure of riddles. He seeks the qualities of the perfect man in people, encourages man to understand himself, to understand his greatness. Bedil puts forward the following idea based on the idea of Sufism's self-awareness in advancing this idea:

*"Inson o'zini bo'lgani kabi ko'rsatsin,*

*Yo ko'rsatgani kabi bo'lgin"[5. 121]*

Man, in order to express himself as he is without painting himself, must correctly imagine his own existence, understand his human nature. Bedil emphasizes we manifest the inner world of a person in harmony with his outer appearance, and encourages the preservation of the unity of appearance with the tongue, the tongue with the heart. In this way, the thinker urges man to renounce arrogance and hypocrisy.

If a person does not understand who he is, if he cannot analyze every step of his life, it is impossible for him to understand the world. A person who does not understand his own state, who cannot control the inner feeling in his heart, cannot understand others correctly and think truthfully about the essence of existence. Man can approach the truth only when he understands himself correctly and realizes his negative aspects, and approaching the truth is one of the eternal desires of human existence.

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The idea of self-awareness put forward by Bedil is in line with Aziziddin Nasafi's views on the perfect man. For example, "He who understands himself, knows himself, understands and recognizes his Lord. He who knows himself also understands the great world (the grave of the world). That is why he should make every effort to understand himself, said Nasiddin [6. 31].

Man's self-awareness of being, his attitude to himself, is put forward by Bedil and are considered to be the main stage of his perfection.

Mirza Bedil seeks the qualities of a man from the people of the earth, encourages man to know himself, to understand his greatness. He emphasizes that man not only embodies the mystery of the two worlds, but he is greater than the two worlds. Bedil's idea states that the universe is governed by a single manifestation of the soul, with the appearance of this absolute ore in every particle. In his work *The Great Ocean*, Bedil likens the creation of the universe to the bubble of wine, where wine is the divine manifestation of light, the Absolute, and the movement and beauty of the universe, he says. People's restless lives, dreams, thoughts and creations are also in this field. It is like a fire, which always intoxicates a person and draws him to his Lord. The whole universe is the creation of a single soul. It exists because of that and returns to that. The human soul is also fire. He will not rest until he burns his body to ashes:

*Zi po nanshast, to otash nashud xokistarachzoyash,  
Ba sa'yi nesty ham g'ayrati kor inchunin boyad [7]*

Meaning: The body does not rest until it is gray, this is the speed of striving for nothingness.

Mirza Bedil is close to other mystical poets in the analysis of human perfection. We should note that in the teachings put forward by Bedil, everyone should strive for perfection, but that perfection is difficult to achieve emphasizes the need to be extremely patient and determined in this way. The philosopher-poet describes it:

*Bu dashtda intilish karvonlar ibor,  
Yo'lovchi shiddatin nishonlari bor.  
Kamolga bir yo'la yetib bo'lmaydi,  
To'lin oy yo'lida narvonlari bor[ 8].*

In Mirza Bedil's idea of the Perfect Man, some aspects of Nasafi's views are not only reflected but also further developed.

When Mirza Bedil expresses his opinion on the perfection of man, he first dwells on the appearance of man and tries to prove that the physical, mental and divine essence in the human body is an entire existence and that this is the basis of his perfection. Moral concepts such as love of man, purification of soul and spirit, education are considered as criteria of human perfection. The moral values in Bedil's worldview reflect the image of the Perfect Man.

The Perfect Man, put forward by Mirza Bedil, is a person who puts divine love into his heart, understands himself and being, loves and values the human heart as the "house of God", strives to adorn the world with the light of spirituality, enlightenment, moral values and physicality in general is a person who embodies the mental-spiritual essence.

In his teachings, Mirza Abdulkadir Bedil also interprets the concept of wisdom in all its aspects, because wisdom is one of the factors that lead a person to perfection. The scholar should pay attention to the concept of "example" as an important aspect of wisdom, knowing that it is one of his advanced ideas. Although the concept of "example" has been used many times by Sufis, they have not been able to break out of the religious shell. In his analysis, Mirza Bedil highlights the importance of this concept in the realization of human virtues, illuminating it not only religiously but also secularly.

The concepts of morality put forward in Mirza Bedil's moral views can be explained as follows:

Nobility is important of the moral principles, it calls man to the preservation of existence, to love people, to the celebration of mercy, courage and bravery. Also, generosity and justice are perfected only when a sense of cabbage is formed in a person.

Humility, which occupies one of the most important places among moral values, is a moral value that gives meaning to a person's life and encourages all his activities to do good deeds. It is an important stage in the formation of moral qualities in man, such as courage, zeal and courage.

The ethical concept of diligence inherent in the perfect man, put forward by Mirza Bedil, is also unique and can be described as follows:

Hard work is an important moral value that embodies the meaning of life. It is a moral criterion that expresses the human image, the essence of man, and only the blessings obtained through labor give pleasure to a man.

Patience is a moral value that motivates a person to do great deeds, tests his will, and allows him to understand his human form.

Patriotism is a feeling of respect, esteem and love for our homeland, the place where we live, the parents we give birth to, the teachers we bring up, the mother tongue we sing, the priceless material and spiritual wealth left by our great ancestors, our state that preserves our peace.

Gentleness is one of the beautiful moral values of man, which sows the seeds of goodness in the heart of man. Humility is a

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spiritual power that triumphs over all oppression. In the language of our people, "A good word comes out of a snake's nest, a bad word comes out of a knife's sheath". A good word is a kindness, a bad word is a sign of oppression and cruelty.

Mirza Bedil's valuable and instructive thoughts on modesty, patience, nobility, patriotism, diligence and other moral values have for centuries encouraged people to be kind, do good deeds, be humble and honest, knowledgeable and enlightened. We believe that the poet's moral views, imbued with the spirit of humanity, are especially important in the development of spirituality, the inculcation of rules of conduct in the younger generation, in educational and enlightenment work.

## CONCLUSION

We can draw the following conclusions about wisdom: Wisdom is an important tool in understanding one's essence, in stepping into perfection, a moral value that regulates human relations, gives beauty to existence, and brings human power to the heavens.

Summarizing Mirza Bedil's ideas about the Perfect Man, the following conclusions can be drawn:

First, a person's self-awareness, self-expression is the first step on the path to human perfection.

Second, the harmony of the physical, mental, and spiritual essence of man is the key factor that ensures human perfection. Because physically healthy and strong, mentally mature and well-rounded, with an independent outlook, active in social relations, as well as spiritually mature, strong in faith, resisting alien and destructive ideas, feeling responsible for human development, spiritual maturity, our in our view, it is the basic example of the perfect human image put forward by Bedil.

Thirdly, the idea of the Perfect Man put forward by the philosopher-poet MirzoBedil is an immortal noble idea that has not lost its educational power in the pursuit of human perfection, in educating young people as fully mature individuals.

## REFERENCES

- 1) Shomukhamedov Sh. - T.: "Fan", 1968. - B.242 - 243.
- 2) Aziziddin Nasafiy. Zubdat-ulhaqoyiq. /Xıqıqatlarkaymogı. - T.: "Kamalak", 1995. - B.22.
- 3) Nazhmiddin Komilov. Irfon nuri Abulmaoniy. // "Bedil va uzbek manaviyati" mavzuidagi khalqaro anjuman materiallari. - B.13.
- 4) Mirzo Abdulqodir Bedil. Shavqingniyodetib. - B.22.
- 5) Hamidulla Boltaboev. Kungilkıtibidananganganfikrlar. // "Tafakkur" magazine, 1996. No. 3. - B. 121.
- 6) Aziziddin Nasafiy. Zubdatul-x a qOY u q. - 31 b.
- 7) Nazhmiddin Komilov. Tasawwuf. - B.125.
- 8) MirzoAbdulqodirBedil. Shavqingniyodetib. - B. 62.
- 9) Jaloliddin Rumi. Ichindagiichindadir. - T.: "Mehnat", 2001. - 158 b.
- 10) Jaloliddin Rumi. Manaviymasnavy. / AskarMaxkamtarzhimasi. - T.: "Sharq", 1999. - 368 b.
- 11) Komilov N. Tasavvuf. - T.: "Yozuvchi", 1996. - 270 b.
- 12) Komilov N. Tasavvuf. 2-kitob. - T.: "Adabiyotvasan'at", "Uzbekiston", 1999. - 207 b.
- 13) Komilov N. KomilinsonxakhidatKrtrisola. - T.: Manaviyat, 1997. - 208 b.
- 14) Matnazar Abdulhakim. Tacallum. - Nukus: Korakalpogiston, 1995 - 45 p.
- 15) Mirzo Abdulqodir Bedil. Kulliet - Dushanbe: "Irfon", 1956. - 655 b.
- 16) Mirzo Abdulqodir Bedil. "KomdevaMudan". / Nazarmattarzhimasi. - T.: "Uzbekiston", 1960. - 94 b.
- 17) Mirzo Abdulqodir Bedil. Osor: iborat az khasht hild. Gildi Yakum. - Dushanbe: "Adib". 1989. - 670 b.
- 18) Mirzo Abdulqodir Bedil. Ruboiylar. / Force-TojiktilidanSh.Shomukhamedovtarzhimasi. - T.: "Adabiyotvasan'at", 1974. - 106 b.
- 19) Mirzo Abdulkodir Bedil. Gazalvaqasidalar. - Hizhriy 1333. - 118 b.
- 20) Mirzo Abdulqodir Bedil. Shavqingniyodetib. - T.: Nashriyotmatbaaizhodiyyuyi, 2005. - 144 b.
- 21) Muminov I. Mirza Bedil. - T.: "Fan", 1964. - 76 b.
- 22) Muminov I. Mirza Bedilningfalsafiykarashlari. - T.: "Uzbekiston", 1957. - 96 b.
- 23) Muminov I. Philosophical views of Mirza Bedil. - T.: Uz "Fan", 1957. - 110 p.
- 24) Farididdin Attor. Ilohiinoma / Force tilidanN.Komilovtarzhimasi. - T.: "Yozuvchi", 1994. - 94 b.
- 25) Shomukhamedov Sh. Khazinalarzhilosı. - T.: "Adabiyotvasan'at", 1981. - 397 b.
- 26) Homidius H. Tasawwuf Allomalari. - T.: "Sharq", 2004. - 208 b.
- 27) Kadkany, Mukhammadrazo Shafe'i-ye. Sho'er-e oyineho. Barrasi-ye sabk-e khandiy va she'r-e Bidel. - Tehron: "Ogoh", 1384.
- 28) Hudoyor Ibrohim. Sadreddin-e Ainy va Bidel-e Dehlaviy (Fors tilida). // "Sino" magazine, 2011 yil: bakhor-ez. 41-42

## The Symbol of Perfection in Bedil's Creation

sonlar. - B.34-49.

29) Boltaboev Hamidulla. Kungil kitobidan anglangan fikrlar. // "Tafakkur" magazine, 1996. - No. 3. - B.120-124.

30) Kholmuminov Ja'far. Buyuk tamaddun and count. / "Hurriyat", 2016 yil 10 Feb. - B.8.

31) Xolmo'minov Ja'far. Bedilni anglash zavqi. / "Tilvaadabiyotta`limi", 2016 yil 6 son. – B.36-37.



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## Study of the Operation of a Building Model with a Seismic Isolation Sliding Belt



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**ABSTRACT:** Due to its location, the territory of the Republic is subject to seismic impact of 7-9 points. Along with the traditional methods of seismic protection, a rational solution is the introduction of new active methods, one of which is a sliding belt. The purpose of the work is to test the effectiveness of the use of a sliding belt, in the conditions of construction on the territory of the Republic of Uzbekistan, using the example of a building with a flexible structure.

**KEY WORDS:** seismic protection, foundation, seismic isolation belt, fluoroplastic, earthquake, seismic impact, building, structure, foundation platform, seismic protection, sliding layer, seismic protection control system

### INTRODUCTION

Summarizing the work on the theory and practice of earthquake-resistant construction, we will follow the logic of research, which leads to the conclusion that a systematic organization of research is necessary for the effective long-term development of earthquake-resistant construction, since the current state is characterized by problematic miscalculations, including:

- inconsistency of the normative theory of the spectral method of calculation with the real physical nature of the seismic impact (not taking into account the first shock, etc.);
- the gap between geodynamic information in points and its reproduction and use in building design;
- neglect of the characteristics of real foundations, which significantly affect the seismic resistance of the upper structure, the lack of development of earthquake-resistant foundations;
- paradoxes arising from the desire to "refine" the normative theory in the case of complex soil conditions;
- practical absence of development and application of external seismic protection devices and systems for automatic control of seismic safety of buildings (structures), etc.

Thus, by updating and modernizing existing norms, it is impossible to ensure long-term development, deeper (radical) changes are needed. Development of constructive safety methods. The shortcomings (weakness) of the normative theory have a negative impact on the development of constructive seismic safety methods, which, according to engineering design, are based on a real picture of seismic impact, and the normative theory does not correspond to it. Apparently, for this reason, a number of constructive principles and recommendations that do not follow directly from the normative theory are not reflected in the current norms.

We point out that the use of sufficient dimensions of a spatial foundation platform on a sliding layer successfully performs both of these functions (it has a greater distribution capacity from vertical loads and a decrease in the transmission of horizontal displacements from the base to a spatial foundation platform with a topside structure), without requiring an artificial foundation device (ramming, piles). etc.) and a large additional "cushion"

Active methods of seismic protection include the device of a seismic isolation belt. The sliding belt seismic isolation system in the foundation is the creation of a sliding surface with a lower coefficient of material friction between the top of the building and the foundation. All seismic isolation systems with dry friction elements are structurally made in the form of upper and lower support elements, between which a layer of materials of mineral origin, sand, clay, etc. is placed. or synthetic gaskets with a low coefficient of friction, for example, fluoroplastic ( $k=0,1-0,2$ ).

The United States Geological Survey (USGS) has calculated that since 1900, approximately 18 earthquakes of magnitude 7 to 7.9 and more than one earthquake of magnitude 8 have occurred on earth every year [1]. In 2011,

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the Circum-Pacific seismic belt entered a period of seismic activity, and several large earthquakes occurred in just four months [2] (Table 1).

**Таблица 1**

№	Дата	Страна	Масштаб	Глубина очага
1	01.01.2011	Аргентина	7.0 баллов	576.8 км
2	02.01.2011	Чили	7.1 баллов	25.1 км
3	13.01.2011	Вануату острова	7.0 баллов	9 км
4	18.01.2011	Пакистан	7.2 баллов	68 км
5	22.02.2011	Новая Зеландия	6.5 баллов	4 км
6	09.03.2011	Япония	7.2 баллов	32 км
7	11.03.2011	Япония	9.0 баллов	24.4 км
8	24.03.2011	Мьянма	7.2 баллов	20 км
9	11.04.2011	Япония	7.1 баллов	10 км

The destruction and collapse of buildings is one of the main consequences of an earthquake. Analysis of previous destructive earthquakes and their investigation on the ground showed that most of the buildings suffered damage, which led to the destruction of load-bearing elements. Therefore, the building loses its stability and strength, collapses, which leads to human casualties and large material losses.

Seismic isolation is considered one of the most effective modern means of ensuring the seismic resistance of buildings and structures. In Russia, 301 civil seismically isolated buildings and several dozen seismically isolated bridges are currently in operation. Hundreds of civil, industrial and transport structures with seismic isolation elements have been built abroad, and the French firms Spie Batignolle and. Electrecity de France designed and built several reactor compartments of nuclear power plants, including those in the 8-point zone near the city of Koiberg (South Africa). Despite such a wide distribution of seismic isolation systems in earthquake-resistant construction, the problems of theoretical substantiation of the effectiveness of these systems and optimization of their parameters, especially under various soil conditions, have not yet been fully and acceptable for practical use.

Solving the problem of seismic resistance of buildings by strengthening their strength is the first thing that started the practice: earthquake-resistant construction. However, with the growth of the complexity of structures and the expansion of knowledge about seismicity, the situation has reached a dead end. Increasing the strength based on the maximum impact, with the growth of the latter, led to the need for the construction of powerful structures. It was necessary to look for another way.

Therefore, it is no coincidence that both in Vietnam and abroad, recent years have been marked by an increased interest in studying the seismic resistance of building structures, and the rapid development of the sciences that serve as the basis for the development of the theory of seismic resistance (engineering seismology, structural mechanics, etc.) . Attention is drawn to the increased interest in the methods of seismic isolation of buildings, which follows from the analysis of reports at international conferences.

### METHODS

Practice has shown that the anti-seismic design method, although effective, brings with it some problems. [3].

1. "Rigid resistance" as the main way to increase the rigidity of the structure, with an increase the size of the section of the structural element and the consumption of reinforcement. But with an increase in material consumption and structural rigidity, the weight of the building will also increase, and therefore the impact on building structures from an earthquake also increases, i.e. a vicious circle is formed.
2. Many important structural members cannot function as inelastic members.
3. When the overall structure of a building is operated in an inelastic state, the result is large deformations and cracks, making the building unfit for further use.
4. Traditional methods of seismic resistance of a structure are based on an assessment of the level of seismicity in a given area. But in some areas, the determination of the level of seismicity has a low accuracy, which leads to uncertainty.

Based on this, in order to ensure the seismic resistance of buildings, some new theories are looking for more rational, cost-effective designs that take into account safety issues. In recent years, a new method of increasing the seismic resistance of buildings, called the active method of seismic protection, has been used in experimental construction, in contrast to the traditional

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(passive) method, which requires additional costs for anti-seismic strengthening of structures. The active method of seismic protection provides for the reduction of seismic loads on structures by regulating their dynamic characteristics during the oscillatory process during an earthquake. The dynamic parameters are controlled in such a way as to avoid a resonant increase in the vibration amplitudes of the structure or, at least, to reduce the resonant effects. This is achieved by an appropriate choice of dynamic stiffness and, accordingly, the frequencies and periods of natural oscillations of the structure.

Changing the dynamic stiffness or frequencies and periods of natural oscillations during an earthquake can be achieved using special design devices. Seismic isolation also includes the so-called rubber-metal supports [4] in the form of rubber poles with metal spacers and a lead core in the center. Undoubtedly, rubber-metal poles, used in China, Japan and some other countries, have great advantages as a seismic protection method for buildings. Unfortunately, scarce material and prefabrication make them too expensive for mass use, especially in locations far from manufacturing plants. All this limits the use of rubber-metal bearings. In this sense, sliding belts, made from traditional reinforced concrete at any landfill, have their advantages. The sliding belt seismic isolation system in the foundation is the creation of a sliding surface with a lower coefficient of material friction between the top of the building and the foundation. During an earthquake, the superstructures of the building have the ability to carry out horizontal movement in relation to the base with a further return of the building to its original position. The main condition for the effective operation of such a system is the remoteness of the frequencies of its natural oscillations from the prevailing frequencies of the seismic movement of the soil of the base of the structure.

In the sliding belt technology, the key element is the sliding device, which includes a friction minimization component and a horizontal movement limitation component [3]. Justification of the effectiveness of external seismic protection. Sliding layer under the foundation platform. Seismic protection methods are presented in the current standards in a very limited way: external seismic protection is not provided, and the use of seismic isolation inside the building is unreasonably limited by the requirement to place it "above the foundation". Methods of external seismic protection have ancient roots and are now being developed in the form of foundation platforms on a sliding layer.

Note that damping and seismic isolation devices have received sufficient development. At the same time, slip devices, incl. by regulating and reducing friction, developed insufficiently. It was possible to show on the basis of computer simulation that the installation of a sliding layer (for example, in the form of several layers of film) between the foundation slab and the base leads to a many-fold reduction in the seismic impact on the foundation and the superstructure.

In the state scientific planning for the development of earthquake-resistant construction in the Republic of Uzbekistan, there are no search and implementation innovations for external and internal seismic protection. In practice, they are guided by expensive foreign (Chinese, etc.) devices, neglecting domestic devices. Traditional internal (above the foundation) seismic isolation in the form of kinematic supports, rubber-metal dampers reduces tangential impacts that cause oscillations of the upper structure (approximately by 1-2 points).

The proposed external (under the foundation slab) seismic protection: the sliding layer under the foundation platform limits the level of transmitted tangential impacts on the system (foundation + superstructure) - no higher than the design level.

Insulating elements require not only vertical bearing capacity to support the top structure of the gravity of the load, but also a low coefficient of friction to ensure good insulation effect. The friction minimization component consists of a top and bottom plate and a central sliding surface. For the central sliding surface, a PTFE-4 film, an elastic coating of graphite, stainless steel, sand, talc, etc., are usually used in the upper and lower plates [7]. high-strength concrete or steel can be used. The device of the component for limiting horizontal movements does not provide a vertical load, but only stabilizes the structure and limits movements under horizontal load. Rubber gaskets, steel spring, U-shaped steel, flexible steel rods, etc. can be used as such a component.

## Study of the Operation of a Building Model with a Seismic Isolation Sliding Belt

### RESULTS AND DISCUSSION

Depending on the shape of the sliding surfaces, seismic isolation devices of the sliding type can be divided into two groups: non-return devices and structures with a gravitational restoring force. The first group includes support devices with horizontal sliding platforms. The potential energy of the mutual position of the structural elements in the process of their relative movement remains constant, i.e., the system is always in a position of stable equilibrium. Devices of the second group, which generally have non-horizontal sliding surfaces, ensure the return of a structure displaced as a result of a seismic shock to the initial position of stable equilibrium due to the occurrence of a gravitational restoring force, constant in magnitude (inclined surfaces) or positional, i.e. sloped surfaces work as components of limiting movements.

The task was set - to develop a constructive solution for the seismic isolation mechanism and evaluate the effectiveness of its introduction into the foundation structure.

As an object for analyzing the operation of a sliding belt during a seismic vibration, a business center building was taken, the modeling of which was carried out in the Allplan complex (Fig. 1).

The seismic isolation mechanism is performed as follows (Fig. 2). The foundation slab is arranged in a mold along the second group of sliding surfaces with an angle of inclination  $\alpha=6^\circ$ . Displacement limiting walls are made in such a way that a gap (0.5 m) is formed between the lower slab of the building and the limiting walls, which allows the building to move in all directions by values equal to the displacement of the base.

The gap is filled with sand, because it works like a damper. 2 layers of fluoroplastic film are laid on the surface of the foundation slab ( $b=4-6$  mm). On the upper layer, the lower reinforced concrete slab of the building is concreted, and the building itself is erected on it. During an earthquake, the foundation slab with displacement limiters and the bottom layer of fluoroplastic film will repeat the vibrations of the foundation.



Figure 1. Model in Allplan

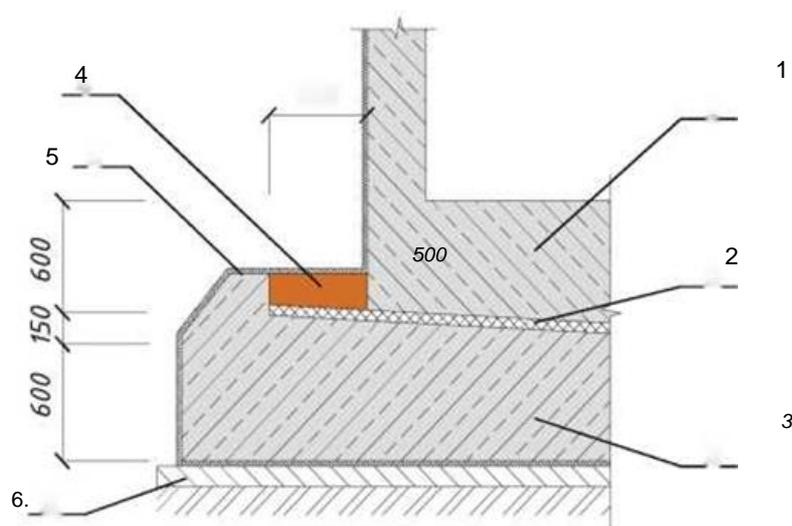
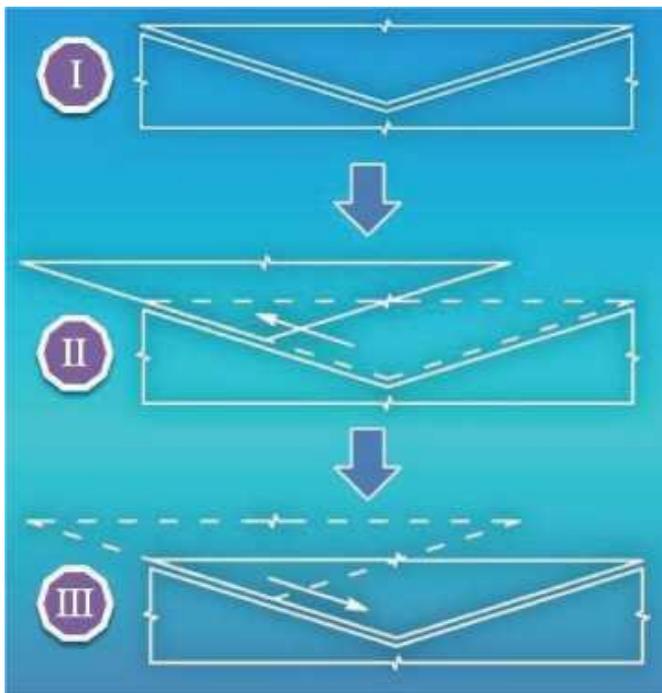


Figure 2. Scheme of a seismic isolation sliding belt:  
1 - the lower part of the building at the foundation level;  
2 - fluoroplastic plates; 3 - foundation; 4 - coarse sand (damper); 5 - waterproofing; 6 - concrete preparation of rest.

## Study of the Operation of a Building Model with a Seismic Isolation Sliding Belt



**Figure 3. Diagram of the principle of operation of the sliding belt.**

The upper layer of the fluoroplastic film interacts with the lower one. Due to the low coefficient of friction in the contacts [12] fluoroplast-fluoroplast  $K_{\tau p}=0,1-0,2$ , and also due to the inertia force of the building, the structure will be in a state of relative rest.

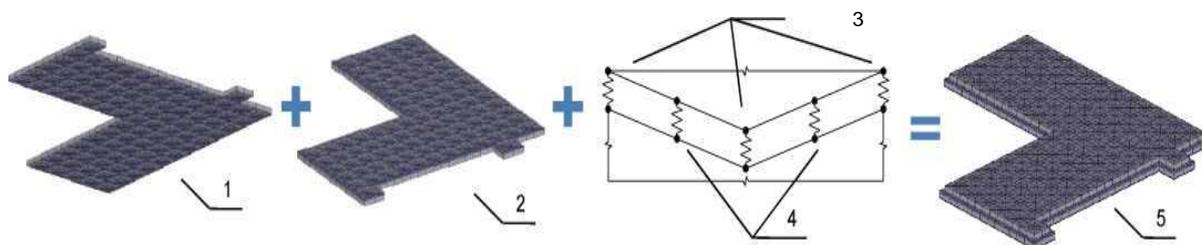
- The principle of operation of the seismic isolation system under the influence of seismic load is divided into 3 states (Fig. 3):
- state 1 - in small earthquakes, the friction rest prevents the upper structure from sliding, so that the structure is stable;;
- state 2 - after exceeding a certain threshold value of the seismic load, the shift in the horizontal direction on the insulating layer is greater than the friction of rest, the sliding surface begins to slide to play the role of seismic insulation;
- state 3 - return of the upper part of the building to its original position.

Let's build a foundation model with a sliding belt (Fig. 4.).

When studying the behavior of seismic isolation systems during dynamic action, it is important to pay attention to the change in natural vibration frequencies. It is known that seismic isolation properties appear with a decrease in the rigidity of the building, that is, the oscillation period increases, the frequency decreases, and thereby seismic loads are reduced.

An analysis of the results showed that an increase in the periods of resonant oscillations of the system is linearly related

to an increase in translational displacements in the level of sliding devices.



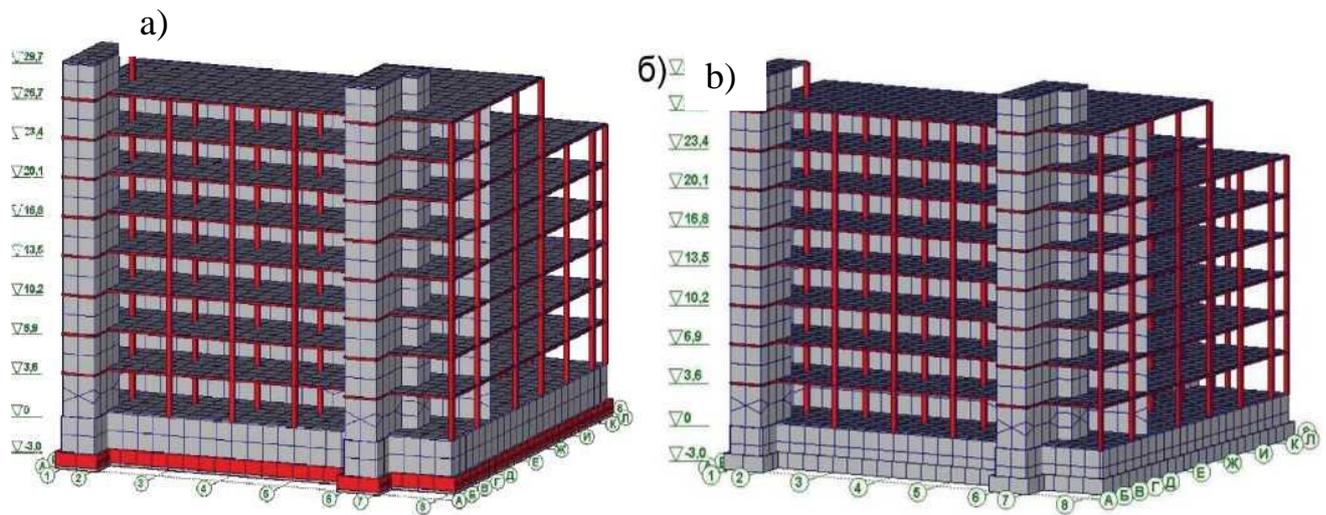
**Figure 4. The scheme of modeling the foundation with a sliding belt:**

- 1 - a model of the lower slab of a building with a 3x3m element; 2 - a model of a foundation slab with a 3x3m element with a 0.5 m extension relative to the lower slab of the building; 3 - the first group of stiffness characteristics with an elastic bond in the form of 55; 4 - the second group of stiffness characteristics with an elastic bond in the form of 55; 5 - a sliding belt model

to an increase in translational displacements in the level of sliding devices.

In the absence of slippage in seismic isolating supports, the attenuation in the structure, determined by the shape of the resonance curves and the relative oscillation parameter (the ratio of the acceleration of the structure to the acceleration of the impact), remains constant when the disturbing load changes. The inclusion of dry friction elements, which are sliding belts, leads to an increase in attenuation in the system in proportion to the change in the disturbing load. The growth of energy dissipation in the sliding elements ensures the stabilization of the reaction of the structure at a quite certain level.

Based on the selected design scheme of the seismic isolation mechanism, two finite element models of the building were created: one, which includes the seismic isolation mechanism according to Fig. 4., and another similar one without it (Fig. 5.).



**Figure 5.** Calculation models: a) seismically isolated building; b) non-seismic isolated building

### CONCLUSION

Thus, a constructive solution has been developed that provides the ability to move the building by the amount of displacement of the base during an earthquake, while maintaining the spatial rigidity of the seismically isolated structure.

According to the results of the study presented in the article, the following can be noted. The introduction of a seismic isolation mechanism into the foundation design makes it possible to reduce vibration frequencies and stresses in the structure and, as a result, reduces the likelihood of structure collapse, which ensures the safety of human lives and valuable equipment, and also reduces the consumption of reinforcement, which makes the building structure more economical.

### REFERENCES

- 1) Magnitude 8 and Greater Earthquakes Since 1900. USGS. URL: [http://earthquake.usgs.gov/earthquakes/eqarchives/year/mag8/magnitude8\\_1900\\_date.php](http://earthquake.usgs.gov/earthquakes/eqarchives/year/mag8/magnitude8_1900_date.php)
- 2) Earthquake quick report. CENC. URL: [http://www.csndmc.ac.cn/newweb/recent\\_eq.htm](http://www.csndmc.ac.cn/newweb/recent_eq.htm)
- 3) Chen Wao. Study of the problem of seismic isolation of buildings and structures. SILICON VALLEY 2010, (8). P. 26-28.
- 4) Ormonbekov T. O. et al. Application of thin-layer rubber-metal supports for seismic protection of buildings. Bishkek: Chukun, 2005. 215 p.
- 5) GOST 10007-80 FLUOROPLAST-4. Specifications. Publishing house of standards. T. state standard of the Republic of Uzbekistan.
- 6) Lyadsky V. A. Seismic isolation of public buildings with elements of fluoroplast in the foundation structure. Deis. mages. engineering and construction technology. St. Petersburg, 2009.
- 7) Makhmudov S.M. Calculation models for the design of building structures. Monograph. T. 2019



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## Analysis of Research on the History of the Origin of the Uzbek People in the “New Uzbekistan” Stage



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**ABSTRACT:** The article examines and analyzes the research conducted by local researchers on the history of the origin of the Uzbek people at a new stage of development of Uzbekistan. The historical dynamics of the issue is shown.

**KEYWORDS:** “Uzbek”, the Turks, ethnicity, ethnos, ethnogenesis, ethnic history, scientific views, concepts, historiography, ethnological research.

### INTRODUCTION

The historical, political, social and cultural processes taking place in the XXI century have led to debates and conflicts on issues such as the role of peoples in world history, the history of their emergence, the region in which they live. Currently, an objective study, analysis and evaluation of the history of the Uzbek people with the help of modern research methods are of great importance. Today it is an objective study of the history of Uzbekistan, which plays an important role in the world, and relevant research work in modern history.

### METHODS USED

The article is based on such methods as historical-genetic, retrospective, problem-chronological, diachronic, historical comparison, historical systematization. The study of the problem is based on the principles of objectivity, historicity, consistency, objectivity, and system analysis. At a new stage of development of Uzbekistan, such tasks as the identification of scientific views and opinions put forward by local researchers on the history of the origin of the Uzbek people, the focus on objectivity, the author’s approach to the problem have been studied historically.

### RESEARCH RESULTS

The literature devoted to the study of the history of the Uzbek people during the years of independence of Uzbekistan can be divided into three chronological stages and analyzed:

- 1991 – 1998 years (early years of independence)
- 1998 – 2016 years (years of advanced research)
- 2016 research on the problem in the literature written from year to day.

From the historical, ethnographic, archeological, source studies, linguistic researches conducted in the first years of independence, it can be said that at this stage there was a scientific interest in the study of the history of the people. The study of the history, material and spiritual heritage of the Uzbek people has accelerated, and this process, of course, was driven by the goals and objectives of the state, which gained political independence. During this period, scientific considerations were not bold in solving the problem of ethnogenesis and ethnic history of the Uzbek people, but a research paper was written that summarized the research work up to this time [14]. On the issue, different views, approaches have emerged. In particular, there have been studies written in the style of studying the greatness of the history of the people, its origins in the distant past, the ethnos that lived in the most ancient times, and this issue has caused serious criticism by the head of state.

First President of the Republic of Uzbekistan I.A. After Karimov’s meeting with a group of historians and the media, his book “There is no future without historical memory” [7] was published. This work became the basis for the emergence of new scientific directions in the development of historical science, new views on the attitude to history. This work brilliantly

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demonstrated the new programmatic guidelines for the creation of our history, escaping the old style, and was recognized as a work that revolutionized our history. He stressed the need to cover the history of Uzbek statehood on the basis of primary sources. It was noted that in order to carry out the tasks, the institutes of History, Oriental Studies and Archeology of the Academy need to change their activities. On the basis of this work, the methods of studying the “ethnogenesis and ethnic history of the Uzbek people”, which is a topical issue for our historians, have changed, and a number of research papers have been published on the basis of a new approach.

One of the most urgent tasks at the level of state policy is to study the ethnogenesis and ethnic history of the Uzbeks, who are considered to be the most populous and rich ethnoculture among the peoples of Central Asia with a common historical destiny, common ethnic, cultural and socio-economic development [4 : 95]. In Islam Karimov’s works, comments on the problem are analyzed in O. Buriev’s articles co-authored with A. Hasanov and M. Usmanov [5].

From 1998 to 2016, many books on the ethnogenesis and ethnic history of the Uzbek people were published. There are scientifically based, historically based studies against the unscientific notion that the peoples of Central Asia, which flourished in Central Asia, originated only in their own shells. Over the years, different approaches have emerged in the study of the problem. The dynamics of the study of the problem has reached a high level. Different opinions and views on the solution of the problem were put forward. Representatives of various fields also expressed their scientific assumptions about the origin of the Uzbek people, the term “Uzbek”. During this time, there was a conflict of opinion on the subject under study, and scientists tried to prove their approaches and scientific opinions with evidence in front of science.

Following the results of elections held on December 4, 2016, Shavkat Mirziyoyev became the President of the Republic of Uzbekistan. Since then, the head of state has made radical changes in all areas. This gave a new impetus to development, opening Uzbekistan to the outside world. In the period from September 2016 to the present day, as in all areas, significant reforms have been carried out in the history of our people, the heritage of our ancestors, their study and transmission to the younger generation. This period, called “New Uzbekistan”, “New stage of development of Uzbekistan”, “Third Renaissance”, occupies a very important place in the history of our country, in the chain of our relations with the world community. This period is a period that has completely changed Uzbekistan, the political, social and economic relations in the life of our society, introduced our country to the world in a new, democratic way.

Today, under the leadership of President Shavkat Mirziyoyev, Uzbekistan is on the path of radical reforms. The country is consistently and resolutely implementing large-scale reforms to achieve the set goals. At the same time, great attention is paid to the ancient values and history of the country.

During the new stage of development of Uzbekistan, many articles on the topic of research became popular and dissertations were defended. Scientific papers have been published with a clear approach and a theoretical conceptual framework. Researchers are now beginning to shed more light on problems in the process of a small link, a particular direction, or a chronological phase of a problem. A. Askarov’s book “The Uzbek people - the indigenous people of Central Asia from ancient Turkic languages” [3], Sh. Kamoliddin’s articles “Historical Maps of Uzbekistan” [9] and The terms “Uzbek” and “Uzbekistan” in written sources [8], A. Malikov’s articles on the classification of the Turkic-speaking population in the Middle Zarafshan oasis, Uzbek tribes, the identity of the Uzbek people [11], N. Tursunov’s “Ethnogenesis and ethnic history of the Uzbek people” [13], S. Ulashova’s “Kavchins in the sources of Amir Temur and the Temurids”, E. Kurbanov’s “Uzbek Turkmen Seed (on the example of Zaamin Turkmen)”, X. Otanov’s “From the history of the ethnic composition and social life of the population of the Emirate of Bukhara in the early twentieth century” and other scientific articles can be included in it.

A. Askarov writes that although the concept of national autochthonism on the origin of the peoples of Central Asia is somewhat scientifically and methodologically sound, but aimed to trace the Turkic roots of the peoples of the Turkic republics only outside Central Asia, served to describe the Turkic peoples as nomadic peoples. Contrary to popular belief, it is scientifically proven that the historical roots of the Uzbek people in the native land today are based on the original sources of material culture, ancient Chinese written sources, dating back to the Bronze Age. The notions of the two arrow roots of the Uzbek people (Turkic and ancient Iranian) are being clarified. Thoughts about his first homeland of Turkish roots are changing, and the idea that his search for an ancient Iranian root in Eastern Europe is unfounded is also finding scientific proof. In this regard, not only archeological and anthropological materials, but also data from ancient Chinese written sources, their comparative interpretation and analysis with archaeological sources reveal the historical truth [3: 3]. In A. Askarov’s research, there is a strong attempt to prove that the Uzbek people are a mixture of two different language-speaking tribes and ethnic groups. These scientific views put forward by the scientist have not been fully substantiated in science. Critical and controversial articles have been published in the form of serious objections to the scholar’s scientific views [1,2,12]. Archaeologist A. Sagdullaev has serious objections to this [12]

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Sh. Kamoliddin's research included Abraham Maas's (1700 - 1735) “Map of the Caspian Sea and the Uzbek Land” (*Tabula Nova de Mare Caspium et Usbekorum region*) in St. Petersburg in 1728, and Vasilio Vatatzis's “Caspian Sea and Aral Sea” published in London in 1732, in qua cruditis spectanda exhibetur pas Asiae [...] Tabula Maris Caspii et Maris Aral). The author notes that the nomadic Uzbek tribes from Dashti Kipchak have had political power in Central Asia since the 16th century. They adopted the high culture and literary language of the local Turkic-speaking settlers and continued the statehood traditions of the Timurids and the pre-Turkic dynasties. In the XVI-XVIII centuries, they had a single territory, a single written literary language and culture. Therefore, in the political maps and globes of that period, the country was named *Usbeck*, *Usbekia* and *Özbekistan*. In the article “The terms” Uzbek and Uzbekistan in written sources [8]. Interprets the terms “Uzbek” and “Uzbekistan” in sources such as Muiniddin Natanzhi's “Muntahab at-Tawarikh-i Mu'ini”, Fasih al-Khawafi's “Mujmal-i Fasihi”, Sharafiddin Ali Yazdi's “Zafarnoma”, Nizamiddin Shami's “Zafarnoma”, Mirzo Ulugbek's “Tarix-i arba'a ulus”, Mahmud ibn Wali's “Bahr al-asror fi manoqib al-ahyar”, “Mehmonnoma-i Bukhara” by Fazlullah Isfahani, Mirza Muhammad Haydar's “History of Rashidiy” and “Temur's Statutes”. These sources do not address the question of the origin of the people, whether it exists or not.

Coverage of the ethnic history of the bells in the ethnic history of the Uzbek people, Kungrad in historical sources and literature in the dissertation “Kungrads of Southern Uzbekistan (historical and ethnological analysis)”, which M. Usmanov defended in 2018 for the degree of Doctor of Philosophy (PhD) in History. theoretical and methodological views and Kungrad on the problem of ethnic history described some theoretical issues of ethnic history. The results and conclusions of this research work of the author shed more light on the problems of ethnic history of the Uzbek people, such as ethnicity, ethnocultural identity.

Researcher O. Inomov in his dissertation “Kovunchi culture and its role in the formation of the Uzbek people” [7]. On the example of Kovunchi culture, showing the historical homeland of the ancestors of the Uzbek people, the geography of territorial distribution in chronological order, studied the mixing and intermingling of the ancient Iranian-speaking Sogdian, Khorezmian and Bactrian peoples in the ethnic composition of the Uzbek people. The place and time of the first formation of the “Central Asian inter-river type” are defined, which illuminates the historical and ethnocultural processes of the Kovunchi culture and its stages, which formed the ethnic composition of the Uzbek people. Sh. Eshankulov studied the ethnic composition of the population of the Zarafshan oasis in the twentieth century on the basis of toponymic materials in his dissertation for the degree of Doctor of History in 2020 “Ethnic composition of the population of the Zarafshan oasis of the XX century (based on toponymic materials).” In this study, the importance of toponymic materials in determining the ethnic composition of the oasis population was expressed.

In recent years, the number of scientific studies directly related to the issue has decreased. Controversial debates on many aspects of the subject persist. Although there are sections on the history of the origin of the Uzbek people at major conferences, the articles focus on the problem or some aspects of it. There is no scientific research based on new methodologies on the fundamental problems of the subject.

## CONCLUSION

A new era in history will inevitably bring innovations to the science of history, resulting in new views, approaches, concepts, and contradictions within the problem. In contrast to the Soviet era, in the works published during the period of independence on the ethnogenesis and ethnic history of the Uzbek people, one can observe new approaches and views, objections, debates and contradictions. The authors of historical, ethnographic, source studies, archeological, anthropological research on the issue in the history of the modern homeland have come to a conclusion based on their approaches. All the published scientific works, the views in which did not show a clear solution to the problem, but led to various debates, objections and critical opinions of scholars. As a result, this issue is still controversial in the eyes of science.

## REFERENCES

- 1) Askarov A.A. Response to comments on the work “History of the origin of the Uzbek people” // History of Uzbekistan. Tashkent: 2016. №1. - p. 69-77.
- 2) Askarov A.A. On the Debates of Two Archaeologists on the same Problem // Archeology of Uzbekistan. №2 (13). Samarkand, 2016. - p. 91-95.
- 3) Askarov A.A. The Uzbek people - the indigenous Turkic-speaking indigenous peoples of Central Asia // TDPU Scientific Information, Scientific-Theoretical Journal № 3 (16) 2018. - p. 2-5;
- 4) Buriev O., Usmonov M. Issues of ethnogenesis and ethnic history of the Uzbek people in the historical heritage of our great leader Islam Karimov // QarSU news. Karshi, 2017, - № 3 (33). - p. 92-97.

## Analysis of Research on the History of the Origin of the Uzbek People in the “New Uzbekistan” Stage

- 5) Boriev O., Hasanov A. Issues of history of Uzbekistan in the works of our great leader Iclom Karimov // QarSU news. Karshi, 2017, - № 1 (31). - p.70-75., Buriev O., Usmonov M. Issues of ethnogenesis and ethnic history of the Uzbek people in the historical heritage of our great leader Islam Karimov // QarSU news. Karshi, 2017, - № 3 (33). - pp.92-97.
- 6) Doniyorov A.X. Our cultural heritage and history lessons in laying the foundations of the Third Renaissance // Republican scientific-practical conference on “Scientific and spiritual foundations of the Third Renaissance.” - Navoi, 2021. - P. 16-18.
- 7) Inomov O.U. Kovunchi culture and its role in the formation of the Uzbek people. History fan. height fal. doc. (PhD) ... dis. - Tashkent, 2019. 182-p.
- 8) Kamoliddin Sh.S. The terms “Uzbek” and “Uzbekistan” in written sources // “INFOLIB information-library” magazine. – Tashkent: 2020. №4. - p. 62-65.
- 9) Kamoliddin Sh.S. Historical maps of Uzbekistan // “INFOLIB information-library” magazine. Tashkent: 2020. №3. - pp. 54-61.
- 10) Karimov I.A. There is no future without historical memory. - Tashkent, 1998. – p. 32.
- 11) Malikov A.M. Ethnic classification of the Turkic-speaking population of the Valley of the Middle Zerafshan in official discourses (the second half of the XIX - the beginning of the XX centuries) // Almaty, 2016. - p 217 -227. Some methodological approaches to the study of Uzbek identity in the 19th - early 20th centuries. (on the example of the population of the Zerafshan valley) // Uzbekiston ethnology sinig dolzarb muammolari. Tashkent: Adabiyot uchqunlari, 2017. -p. 16-32, “92 Uzbek Tribes” in Official Discourses and the Oral Traditions from the sixteenth to nineteenth centuries // Golden Horde Review. 2020. V. 8, No. 3. p. 515–532.
- 12) 12. Sagdullaev A. A brief description of a debate. Collection “History and Culture of Central Asia”. Toshkent, 2016. - p. 12-13.
- 13) 13. Tursunov N.N. Ethnogenesis and ethnic history of the Uzbek people // Looking to the past. Tashkent, 2019, - № 6. - p.17-23.
- 14) 14. Khoshimova D.F. The study of ethnic history and ethnogenesis of the Uzbek people in the historiography of the homeland (mid-nineteenth and twentieth centuries). dis. - Tashkent, 1997. –p. 162.
- 15) 15. Doniyorov, A. K. (2020). Problems of Ethnogenesis and Ethnic History of Uzbek People at the Current Stage. *PalArch's Journal of Archaeology of Egypt/Egyptology*, 17(6), 8968-8974.
- 16) 16. Дониёров, А. Х. (1997). История развития этнографических знаний в Узбекистане:(вторая половина XIX в.-30-е годы XX в.).
- 17) 17. Odilov, B. A., & Karimov, N. R. (2020). Analysis of Targeted Research in 20-30 Years of the XX Century. *PalArch's Journal of Archaeology of Egypt/Egyptology*, 17(6), 8887-8893.
- 18) 18. Khudoyberdiyevich, D. A. (2018). On general methodological, ethnopolitical and ethnocultural aspects of “Diaspora issues”(To the theoretical formulation of the problem and the ways of its practical solution). *ACADEMICIA: An International Multidisciplinary Research Journal*, 8(11), 68-74.



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## Dynamic Characteristics of New Transformer Converters and its Measurement of Angle Slips Differences



S.F. Amirov<sup>1</sup>, N.R. Yuldashev<sup>2</sup>

**ANNOTATION:** The article developed a parametric structure diagram for the dynamic modes of measuring devices in the formation of operator-type algebraic equations that reflect the electromechanical and electromagnetic processes occurring in the dynamic modes of the electromechanical measuring transducer, which measures the difference of angular displacements. In determining the dynamic properties of the elements in the measuring device, their inputs are given jumping variable mechanical moments and sinusoidal variable mechanical moments, the laws of change of the output size of the element over time are determined.

**KEY WORDS:** inductance, capacitive force moments, mechanical resistance, mechanical stiffness, mechanical inductance, parametric structure diagram, excitation coil, current source, magnetic flux, electric capacitance.

### INTRODUCTION

The mode in which the output and input magnitudes of a measuring device (MD) change over time is called its dynamic mode [12, p. 46; 13, 8 p.]. The MDs under study, like other types of electromechanical measuring transducers, contain inertial elements such as inductance and capacitance of mechanical, electrical and magnetic nature that store energy. Under the influence of these elements, the instantaneous value of the output magnitude in the dynamic mode of MD depends not only on the change in the instantaneous value of the input magnitude, but also on its derivative changes [7, 21-22 p.]. The inertial properties of MDs are studied and evaluated using their dynamic characteristics. The dynamic characteristics of MDs are formed using differential equations, transmissions or complex frequency functions that reflect the dynamic processes that take place in them. [14, 123-124 p.].

As mentioned earlier, the MD under study is an electromechanical measuring transducer, the structural composition of which consists of a set of elements of mechanical, electrical and magnetic chains.

### METHODS

Figure 1 shows a schematic diagram of an electromechanical MD mechanical chain with a transformer measuring the difference in angular displacement under study.

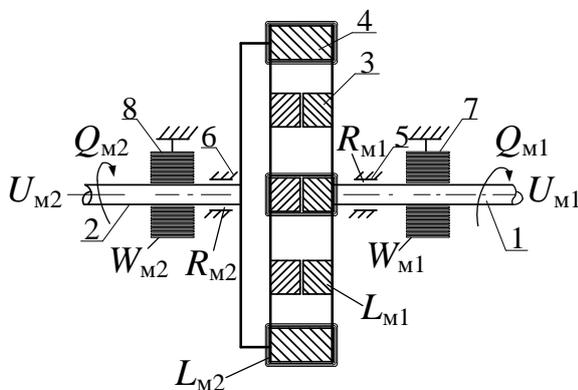


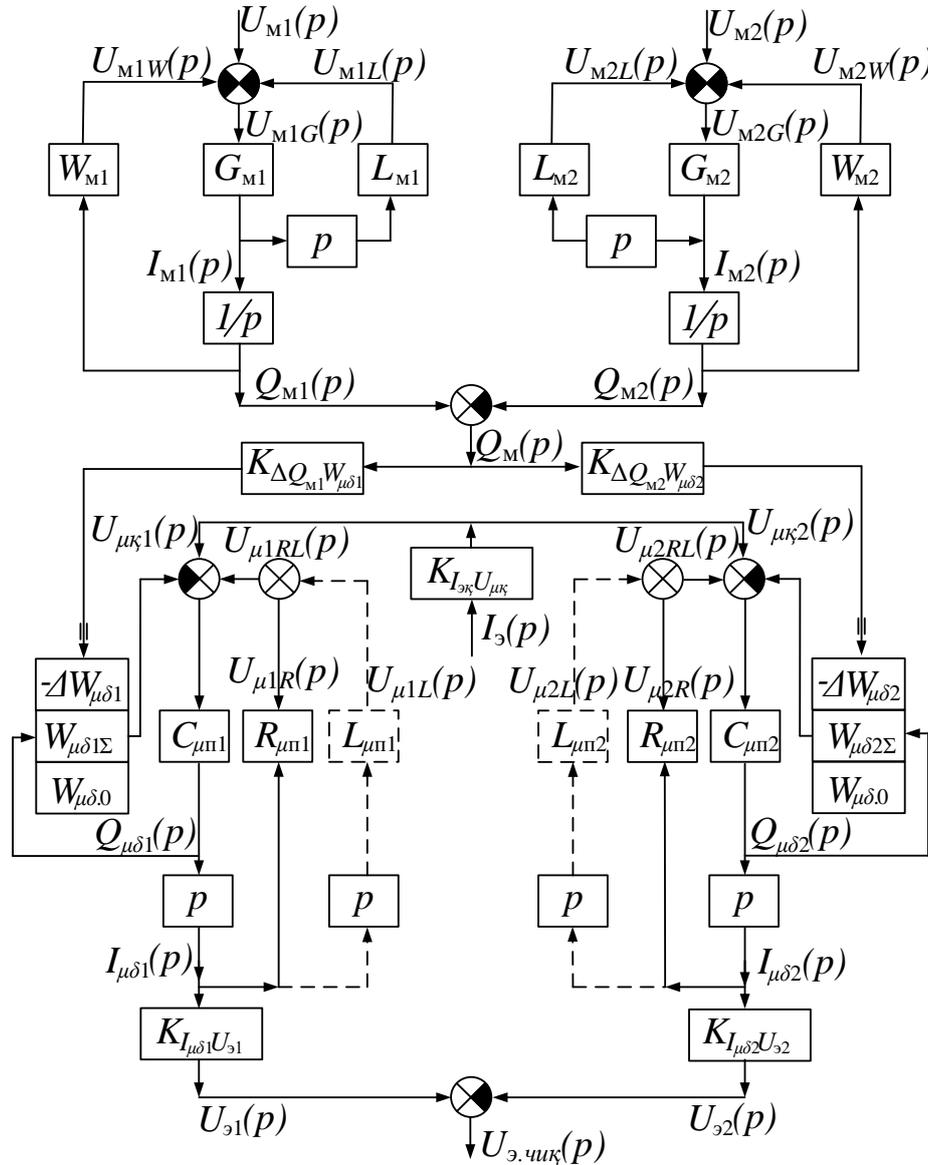
Figure 1. Constructive scheme of electromechanical MD magnetic circuit with transformer measuring angular displacement difference: 1, 2 – bars; 3, 4 – moving parts; 5, 6 – friction bearings; 7, 8 – spiral springs.

In the scheme:  $U_{M1}, U_{M2}, [N \cdot m]$  and  $Q_{M1}, Q_{M2}, [degri]$  – the moments of force transmitted by the controlled objects to the rods fixed to the moving parts and the angles of rotation of the rods under the influence of these forces;  $R_{M1}, R_{M2}$  – mechanical resistance of friction bearings,  $[Pa \cdot s \cdot m^3]$ ;  $L_{M1}, L_{M2}$  – mechanical inductance of each moving part,  $[kg \cdot m^2]$ ;  $W_{M1}, W_{M2}$  – mechanical stiffness of helical springs,  $[(N \cdot m)/degri]$ .

**Dynamic Characteristics of New Transformer Converters and its Measurement of Angle Slips Differences**

In the formation of operator-type algebraic equations necessary for the study of the dynamic properties of the studied MDs and reflecting the electromechanical and electromagnetic processes occurring in their dynamic modes, it is expedient to use the method of PSD for dynamic modes of MDs. [6].

Theoretical study of the dynamic characteristics of the created MDs PSDs are shown in Figures 2 and 3.



**Figure 2. Theoretical study of the dynamic characteristics of the created MD is a structured parametric structure scheme**

The theoretical study of the dynamic characteristics of one of the created MDs is considered in the example of MD shown in PSD Figure 3. In order to simplify the calculations to a certain extent, we introduce the following conditions for the MD under study, taking into account the conventional limitations in the analysis of magnetic chains:



$$Q_{M1}(p) = \frac{C_M U_{M1}(p)}{L_{M1} C_M p^2 + R_M C_M p + 1} = \frac{K_{M1} U_{M1}(p)}{p^2 + 2\delta_{M1} p + \omega_{M1}^2}, \quad (7)$$

Where is  $K_{M1} = 1/L_{M1}$ ,  $[1/(kg \cdot m^2)]$ ;  $\delta_{M1} = R_M/2L_{M1}$ ,  $[s^{-1}]$ ;  $\omega_{M1} = \sqrt{1/C_{M1}L_{M1}}$ ,  $[s^{-1}]$

For the right branch of the PSD section I compose the equations in the same order as above and create the following result equation:

$$Q_{M2}(p) = \frac{C_M U_{M2}(p)}{L_{M2} C_M p^2 + R_M C_M p + 1} = \frac{K_{M2} U_{M2}(p)}{p^2 + 2\delta_{M2} p + \omega_{M2}^2}. \quad (8)$$

Substituting equations (7) and (8) into (1), we obtain the following expression:

$$\Delta Q_M(p) = \frac{K_{M1} U_{M1}(p)}{p^2 + 2\delta_{M1} p + \omega_{M1}^2} - \frac{K_{M2} U_{M2}(p)}{p^2 + 2\delta_{M2} p + \omega_{M2}^2}. \quad (9)$$

We write the following equations for the elemental converters in Part III of the PSD:

$$U_{\text{э.чик}}(p) = K_{I_{\mu\delta}} U_{\text{э.чик}} I_{\mu\delta}(p); \quad (10) \quad I_{\mu\delta}(p) = I_{\mu\tau1}(p) + I_{\mu\tau2}(p); \quad (11)$$

$$I_{\mu\tau1}(p) = p Q_{\mu\tau1}(p); \quad (12) \quad Q_{\mu\tau1}(p) = \frac{1}{2} C_{\mu\tau} U_{\mu\tau C}(p); \quad (13)$$

$$U_{\mu\tau1C}(p) = U_{\mu\kappa}(p) - U_{\mu\tau1R}(p); \quad (14) \quad U_{\mu\tau1R}(p) = \frac{1}{2} p R_{\mu\tau} Q_{\mu\tau1}(p) \quad (15)$$

$$U_{\mu\delta}(p) = (p R_{\mu\delta} + p^2 L_{\mu\delta} + W_{\mu\delta\delta} + W_{\mu\delta\pi}) Q_{\mu\delta}(p); \quad (16)$$

$$Q_{\mu\delta}(p) = Q_{\mu\tau1}(p) + Q_{\mu\tau2}(p); \quad (17) \quad I_{\mu\tau2}(p) = p Q_{\mu\tau2}(p); \quad (18)$$

$$Q_{\mu\tau2}(p) = \frac{1}{2} C_{\mu\tau} U_{\mu\tau2C}(p); \quad (19) \quad U_{\mu\tau2C}(p) = U_{\mu\kappa}(p) - U_{\mu\tau2R}(p); \quad (20)$$

$$U_{\mu\tau1R}(p) = \frac{1}{2} p R_{\mu\tau} Q_{\mu\tau2}(p); \quad (21) \quad U_{\mu\kappa}(p) = K_{\Delta Q_M} U_{\mu\kappa} \Delta Q_M, \quad (22)$$

Where is  $K_{\Delta Q_M} U_{\mu\kappa} = w_{\kappa} I_{\text{эК}} / \Delta Q_{\text{Mmax}}$ ,  $[A/\text{degri}]$ .

(13)-(17) and (19)-(22) equations  $Q_{\mu\tau1}(p)$ ,  $Q_{\mu\tau2}(p)$  and  $Q_{\mu\delta}(p)$  together with respect to magnetic fluxes, we obtain the following expressions:

$$Q_{\mu\tau1}(p) = Q_{\mu\tau2}(p) = \frac{K_{\Delta Q_M} U_{\mu\kappa} C_{\mu\Sigma} \Delta Q_M(p)}{R_{\mu\Sigma} C_{\mu\Sigma} p + 1} = \frac{K_{\Delta Q_M} U_{\mu\kappa} G_{\mu\Sigma} \Delta Q_M(p)}{p + \frac{1}{T_{\mu}}}, \quad (23)$$

$$Q_{\mu\delta}(p) = \frac{2K_{\Delta Q_M} U_{\mu\kappa} C_{\mu\Sigma} \Delta Q_M(p)}{R_{\mu\Sigma} C_{\mu\Sigma} p + 1} = \frac{K_{\Delta Q_M} U_{\mu\kappa} G_{\mu\Sigma} \Delta Q_M(p)}{p + \frac{1}{T_{\mu}}}, \quad (24)$$

Where is  $G_{\mu\Sigma} = 1/R_{\mu\Sigma}$ ,  $[\Omega]$ ;  $T_{\mu} = R_{\mu\Sigma} C_{\mu\Sigma}$ ,  $[s]$ .

Substituting (12) and (18) into (11) and the result into (10), we obtain the following equation:

$$U_{\text{э.чик}}(p) = \frac{2K_{I_{\mu\delta}} U_{\text{э.чик}} K_{\Delta Q_M} U_{\mu\kappa} p G_{\mu\Sigma} \Delta Q_M(p)}{p + \frac{1}{T_{\mu}}}. \quad (25)$$

$\Delta Q_M(p)$  Substituting (9) into (25), we obtain the following equation of the dynamic characteristics of the studied MD in operator form:

$$U_{\text{э.чик}}(p) = \frac{2K_{I_{\mu\delta}} U_{\text{э.чик}} K_{\Delta Q_M} U_{\mu\kappa} G_{\mu\Sigma} K_{M1} p U_{M1}(p)}{(p^2 + 2\delta_{M1} p + \omega_{M1}^2) \left(p + \frac{1}{T_{\mu}}\right)} - \frac{2K_{I_{\mu\delta}} U_{\text{э.чик}} K_{\Delta Q_M} U_{\mu\kappa} G_{\mu\Sigma} K_{M2} p U_{M2}(p)}{(p^2 + 2\delta_{M2} p + \omega_{M2}^2) \left(p + \frac{1}{T_{\mu}}\right)}. \quad (26)$$

It is known that [1; 2, pp. 27-29], in transformer measuring converters, the excitation coil can be supplied from an alternating voltage or current source with sinusoidal regularity. If the excitation coil of the MD under study is supplied from a current source, then the static characteristic of the MD retains its linearity even when it is operating in load-connected mode. This is why it is the driving force in the study of the dynamic properties of MD  $i_{\text{эК}}(t) = I_{\text{эК}m} \cos \omega_3 t$  we consider the case connected to a sinusoidal source.

Analysis of Equation (26) shows that a new transformer converter supplied from a current source can be described as a real differentiating link given the difference between the output magnitudes of the two oscillating links at the input of the automatic control system to which it is applied [5, pp. 56-61].

Therefore, equation (26) gives the coefficient  $K_{\Delta Q_M} U_{\mu\kappa}$  in the image of each additive  $w_{\kappa} i_{\text{эК}}(t) / \Delta Q_{\text{Mmax}} = K_{I_{\text{эК}}} i_{\text{эК}}(t)$  in order to simplify the finding of the original of the equation (26) in the form of the operator, we write in the following form:

$$A(p) = \frac{U_{\text{э.чик}}(p)}{L\left\{\frac{d}{dt}i_{\text{эК}}(t)\right\}} = \frac{K_1 U_{M1}(p)}{(p^2 + 2\delta_{M1}p + \omega_{M1}^2)\left(p + \frac{1}{T_\mu}\right)} - \frac{K_2 U_{M1}(p)}{(p^2 + 2\delta_{M2}p + \omega_{M2}^2)\left(p + \frac{1}{T_\mu}\right)}, \quad (27)$$

Where is  $L\left\{\frac{d}{dt}i_{\text{эК}}(t)\right\} = pI_{\text{эК}}(p)$ ;  $K_1 = 2K_{I_{\mu\Delta}U_{\text{э.чик}}}K_{I_{\text{эК}}}G_{\mu\Sigma}K_{M1}$ ,  $[degri^{-1} \cdot \Omega \cdot (kg \cdot m^2)^{-1}]$ ;  $K_2 = 2K_{I_{\mu\Delta}U_{\text{э.чик}}}K_{I_{\text{эК}}}G_{\mu\Sigma}K_{M2}$ ,  $[degri^{-1} \cdot \Omega \cdot (kg \cdot m^2)^{-1}]$ .

We know from the theory of automatic control [10, pp. 77-79] that in determining the dynamic properties of elements in control and management systems, their input is usually given by sample effects of value jump and harmonic variable, determining the regularity of change of element output size over time. We also study the reaction of the MD under study to these sample input effects [4, 9].

**RESULTS AND DISCUSSION**

1. 1. The condition in which the mechanical moments of the jump are given by jumping to the MD inputs, that is  $U_{M1}(t) = U_{M10} = const$  and  $U_{M2}(t) = U_{M20} = const$ . Their operator images  $U_{M1}(p) = \frac{U_{M10}}{p}$  and  $U_{M2}(p) = \frac{U_{M20}}{p}$  Substituting (16), we obtain the following operator equation:

$$A(p) = \frac{K_1 U_{M10}}{p(p^2 + 2\delta_{M1}p + \omega_{M1}^2)\left(p + \frac{1}{T_\mu}\right)} - \frac{K_2 U_{M20}}{p(p^2 + 2\delta_{M2}p + \omega_{M2}^2)\left(p + \frac{1}{T_\mu}\right)} = \frac{F_1(p)}{F_2(p)} - \frac{F_3(p)}{F_4(p)}. \quad (28)$$

(28) equations characteristic equations  $F_2(p) = 0$  and  $F_4(p) = 0$  we find the following roots of:

$$p_1 = 0; \quad p_{2,3} = -\delta_M \pm \sqrt{\delta_M^2 - \omega_M^2}; \quad p_4 = -\frac{1}{T_\mu}. \quad (29)$$

(28) from the image of the operator of the function (29) to the original of its time according to the roots we pass by the following distribution theorem:

$$A(t) = \sum_{k=1}^4 \frac{F_1(p_k)}{F_2'(p_k)} e^{p_k t} - \sum_{k=1}^4 \frac{F_3(p_k)}{F_4'(p_k)} e^{p_k t}. \quad (30)$$

$p^2 + 2\delta_M p + \omega_M^2 = 0$  depending on the values of the parameters of the mechanical chains  $p_2$  and  $p_3$  MD, which are the roots of the equation, are known [11, 254-257 pp.], can be real and different, real and identical and complex joint roots. We find the functions A (t) for these roots.

1)  $\delta_{M1} > \omega_{M1}$  and  $\delta_{M2} > \omega_{M2}$  the roots of the equation are real and different, that is  $F_2(p) = 0$  for  $p_{2,3} = -\delta_{M1} \pm \sqrt{\delta_{M1}^2 - \omega_{M1}^2}$ . And  $F_4(p) = 0$  for  $p_{2,3} = -\delta_{M2} \pm \sqrt{\delta_{M2}^2 - \omega_{M2}^2}$ . For this case, Equation (30) looks like this:

$$A_1(t) = A_{10} + A_{11}e^{-\frac{1}{T_\mu}t} + A_{12}[M_1 ch(\omega'_{M1}t) - N_1 sh(\omega'_{M1}t)]e^{-\delta_{M1}t} - A_{13}[M_2 ch(\omega'_{M2}t) - N_2 sh(\omega'_{M2}t)]e^{-\delta_{M2}t} \quad (31)$$

Where is  $A_{10} = \left(\frac{K_1 U_{M10}}{\omega_{M1}^2} - \frac{K_2 U_{M20}}{\omega_{M2}^2}\right) T_\mu$ ,  $[\Omega \cdot s]$ ;

$$A_{11} = \left(\frac{K_1 U_{M10}}{(2\delta_{M1}T_{\text{эК}} - T_{\text{эК}}^2 \omega_{M1}^2 - 1)} - \frac{K_2 U_{M20}}{(2\delta_{M2}T_{\text{эК}} - T_{\text{эК}}^2 \omega_{M2}^2 - 1)}\right) T_\mu^3, \quad [\Omega \cdot s^3];$$

$$A_{12} = \frac{4K_1 U_{M10} T_\mu}{M_1^2 - N_1^2}, \quad [\Omega \cdot s^3]; \quad A_{13} = \frac{4K_2 U_{M20} T_\mu}{M_2^2 - N_2^2}, \quad [\Omega \cdot s^3];$$

$$\omega'_{M1} = \sqrt{\delta_{M1}^2 - \omega_{M1}^2}, \quad [1/s]; \quad \omega'_{M2} = \sqrt{\delta_{M2}^2 - \omega_{M2}^2}, \quad [1/s];$$

$$M_1 = 14T_\mu \delta_{M1}^3 + 5\delta_{M1}^2 - \omega_{M1}^2 - 8T_\mu \omega_{M1}^2 \delta_{M1}, \quad [1/s^2];$$

$$N_1 = 2T_\mu \omega_{M1}^3 + 5\omega'_{M1} \delta_{M1} + T_\mu \omega_{M1}^2 \omega'_{M1} + 12T_\mu \delta_{M1}^2 \omega'_{M1}, \quad [1/s^2];$$

$$M_2 = 14T_\mu \delta_{M2}^3 + 5\delta_{M2}^2 - \omega_{M2}^2 - 8T_\mu \omega_{M2}^2 \delta_{M2}, \quad [1/s^2];$$

$$N_2 = 2T_\mu \omega_{M2}^3 + 5\omega'_{M2} \delta_{M2} + T_\mu \omega_{M2}^2 \omega'_{M2} + 12T_\mu \delta_{M2}^2 \omega'_{M2}, \quad [1/s^2].$$

2)  $\delta_{M1} = \omega_{M1}$  va  $\delta_{M2} = \omega_{M2}$  in the case of

$$A_2(t) = A_{20} + A_{21}e^{-\frac{1}{T_\mu}t} + A_{22}e^{-\delta_{M1}t} - A_{23}e^{-\delta_{M2}t}, \quad (32)$$

Where is  $A_{20} = A_{10}$ ,  $[\Omega \cdot s]$ ;  $A_{21} = A_{11}$ ,  $[\Omega \cdot s]$ ;

$$A_{22} = \frac{K_1 U_{M10} T_\mu}{2T_\mu \omega_{M1}^2 \delta_{M1} + 10T_\mu \delta_{M1}^3 + 7\delta_{M1}^2 + \omega_{M1}^2}, \quad [\Omega \cdot s];$$

$$A_{23} = \frac{K_2 U_{M20} T_\mu}{2T_\mu \omega_{M2}^2 \delta_{M2} + 10T_\mu \delta_{M2}^3 + 7\delta_{M2}^2 + \omega_{M2}^2}, \quad [\Omega \cdot s];$$

3)  $\delta_{M1} < \omega_{M1}$  and  $\delta_{M2} < \omega_{M2}$  when the roots of the equation are abstract

$$A_3(t) = A_{30} + A_{31} e^{-\frac{1}{T_\mu} t} + A_{32} e^{-\delta_{M1} t} \cos(\omega'_{M1} t - \varphi_1) - A_{33} e^{-\delta_{M2} t} \cos(\omega'_{M2} t - \varphi_2), \quad (33)$$

Where is  $A_{30} = A_{10}, [\Omega \cdot s]; A_{31} = A_{11}, [\Omega \cdot s]; A_{32} = \frac{2K_1 U_{M10} T_\mu}{\sqrt{B_1^2 + S_1^2}}, [\Omega \cdot s]; A_{33} = \frac{2K_2 U_{M20} T_\mu}{\sqrt{B_2^2 + S_2^2}}, [\Omega \cdot s]; B_1 = 28\delta_{M1}^3 T_\mu + 10\delta_{M1}^2 -$

$$2\omega_{M1}^2 - 16T_\mu \omega_{M1}^2 \delta_{M1}, [s^{-2}];$$

$$S_1 = 24T_\mu \delta_{M1}^2 \omega'_{M1} - 4T_\mu \omega_{M1}^3 + 10\omega'_{M1} \delta_{M1} + 2\omega_{M1}^2 \omega'_{M1} T_\mu, [s^{-2}];$$

$$\varphi_1 = \arctg\left(\frac{S_1}{B_1}\right), [degri]; \varphi_2 = \arctg\left(\frac{S_2}{B_2}\right), [degri].$$

$$B_2 = 28\delta_{M2}^3 T_\mu + 10\delta_{M2}^2 - 2\omega_{M2}^2 - 16T_\mu \omega_{M2}^2 \delta_{M2}, [s^{-2}];$$

$$S_2 = 24T_\mu \delta_{M2}^2 \omega'_{M2} - 4T_\mu \omega_{M2}^3 + 10\omega'_{M2} \delta_{M2} + 2\omega_{M2}^2 \omega'_{M2} T_\mu, [s^{-2}].$$

Based on Equation (27), we find the original voltage at the MD output as follows:

$$u_{\text{э.чик.}}(t) = A(t) \cdot \frac{d}{dt} [i_{\text{эК}}(t)] = A(t) \omega_3 I_{\text{эКМ}} \sin \omega_3 t. \quad (34)$$

MD mechanical chains considering expressions (31), (32) and (33)  $p^2 + 2\delta_{M} p + \omega_M^2 = 0$  The roots of the characteristic equation are real and different, for real and the same and complex joint roots, equation (34) is as follows:

$$u_{\text{э.чик.1}}(t) = U_{1m0} \sin \omega_3 t + U_{1m1} e^{-\frac{1}{T_\mu} t} \sin \omega_3 t + [U'_{1m2} \text{ch}(\omega'_{M1} t) - U''_{1m2} \text{sh}(\omega'_{M1} t)] e^{-\delta_{M1} t} \sin \omega_3 t - [U'_{1m3} \text{ch}(\omega'_{M2} t) - U''_{1m3} \text{sh}(\omega'_{M2} t)] e^{-\delta_{M2} t} \sin \omega_3 t, \quad (35)$$

Where is  $U_{1m0} = A_{10} \omega_3 I_{\text{эКМ}}; U_{1m1} = A_{11} \omega_3 I_{\text{эКМ}}; U'_{1m2} = A_{12} \omega_3 I_{\text{эКМ}} M_1; U''_{1m2} = A_{12} \omega_3 I_{\text{эКМ}} N_1; U'_{1m3} = A_{13} \omega_3 I_{\text{эКМ}} M_2; U''_{1m3} = A_{13} \omega_3 I_{\text{эКМ}} N_2, [V].$

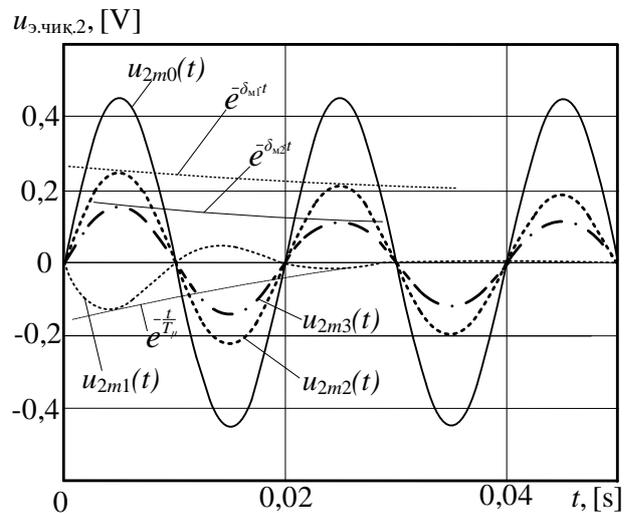
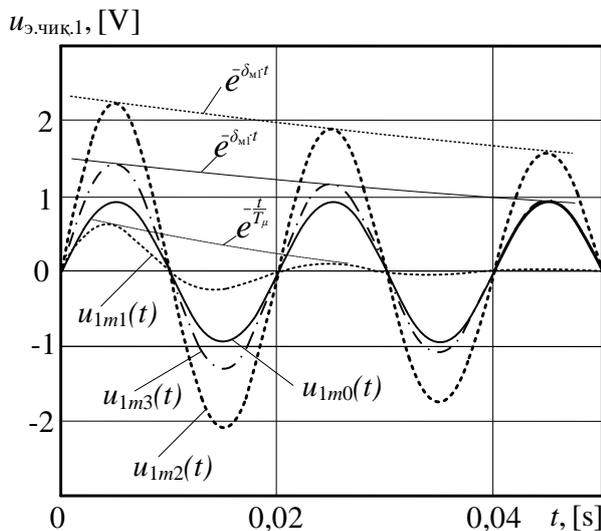
$$u_{\text{э.чик.2}}(t) = U_{2m0} \sin \omega_3 t + U_{2m1} e^{-\frac{1}{T_\mu} t} \sin \omega_3 t + U_{2m2} e^{-\delta_{M1} t} \sin \omega_3 t - U_{2m3} e^{-\delta_{M2} t} \sin \omega_3 t, \quad (36)$$

Where is  $U_{2m0} = A_{20} \omega_3 I_{\text{эКМ}}; U_{2m1} = A_{21} \omega_3 I_{\text{эКМ}}; U_{2m2} = A_{22} \omega_3 I_{\text{эКМ}}; U_{2m3} = A_{23} \omega_3 I_{\text{эКМ}}, [V].$

$$u_{\text{э.чик.3}}(t) = U_{3m0} \sin \omega_3 t + U_{3m1} e^{-\frac{1}{T_\mu} t} \sin \omega_3 t + U_{3m2} e^{-\delta_{M1} t} \{ \sin[(\omega_3 - \omega'_{M1})t + \varphi_1] + \sin[(\omega_3 + \omega'_{M1})t - \varphi_1] \} - U_{3m3} e^{-\delta_{M2} t} \{ \sin[(\omega_3 - \omega'_{M2})t + \varphi_2] + \sin[(\omega_3 + \omega'_{M2})t - \varphi_2] \}, \quad (37)$$

Where is  $U_{3m0} = A_{30} \omega_3 I_{\text{эКМ}}; U_{3m1} = A_{31} \omega_3 I_{\text{эКМ}}; U_{3m2} = \frac{1}{2} A_{32} \omega_3 I_{\text{эКМ}}; U_{3m3} = \frac{1}{2} A_{33} \omega_3 I_{\text{эКМ}}, [V].$

Graphs of functions (35), (36) and (37) are shown in Figures 4÷5, respectively.



## Dynamic Characteristics of New Transformer Converters and its Measurement of Angle Slips Differences

Figure 4 Transient voltage time diagrams when the input of MD is given the difference of jumping moments and when  $\delta_{M1} > \omega_{M1}$  ба  $\delta_{M2} > \omega_{M2}$

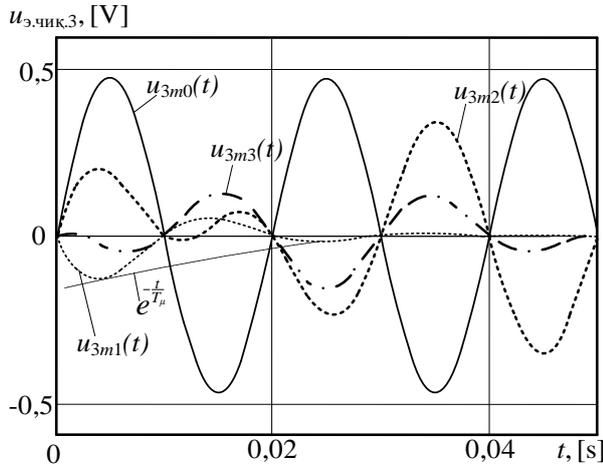


Figure 5. Transient voltage time diagrams when the input of MD is given the difference of the moments of the jump and when  $\delta_{M1} = \omega_{M1}$  and  $\delta_{M2} = \omega_{M2}$

Figure 6. Transient voltage time diagrams when the input of the MD input is given the difference of the alternating moments and when  $\delta_{M1} < \omega_{M1}$  ба  $\delta_{M2} < \omega_{M2}$

2. 2. A condition in which sinusoidal variable mechanical moments are given to the MD inputs, that is  $U_{M1}(t) = U_{mm1} \sin \Omega_{M1} t$  and  $U_{M2}(t) = U_{mm2} \sin \Omega_{M2} t$ . Their operator images  $U_{M1}(p) = \frac{\Omega_{M1} U_{mm1}}{p^2 + \Omega_{M1}^2}$  and  $U_{M2}(p) = \frac{\Omega_{M2} U_{mm2}}{p^2 + \Omega_{M2}^2}$  Substituting (27) into, we obtain the following operator equation:

$$A(p) = \frac{K_1 U_{mm1}}{(p^2 + \Omega_{M1}^2)(p^2 + 2\delta_{M1}p + \omega_{M1}^2) \left(p + \frac{1}{T_\mu}\right)} - \frac{K_2 U_{mm2}}{(p^2 + \Omega_{M2}^2)(p^2 + 2\delta_{M2}p + \omega_{M2}^2) \left(p + \frac{1}{T_\mu}\right)} = \frac{F_1(p)}{F_2(p)} - \frac{F_3(p)}{F_4(p)} \quad (38)$$

$F_2(p) = 0$  and  $F_4(p) = 0$  we find the following roots of the characteristic equations:

$$p_1 = \pm j\Omega; \quad p_{2,3} = -\delta_M \pm \sqrt{\delta_M^2 - \omega_M^2}; \quad p_4 = -\frac{1}{T_\mu} \quad (39)$$

1)  $\delta_{M1} > \omega_{M1}$  and  $\delta_{M2} > \omega_{M2}$  for the present case (38) the original of equation (38) is in the following form according to the propagation theorem:

$$A_1(t) = A_{11} e^{-\frac{1}{T_\mu} t} + A_{12} \cos(\Omega_{M1} t - \varphi_1) - A_{13} \cos(\Omega_{M2} t - \varphi_2) + A_{14} e^{-\delta_{M1} t} (B_1 ch \omega'_{M1} t - S_1 sh \omega'_{M1} t) - A_{15} e^{-\delta_{M2} t} (B_2 ch \omega'_{M2} t - S_2 sh \omega'_{M2} t), \quad (40)$$

Where is  $A_{11} = \left( \frac{\Omega_{M1} K_1 U_{mm1} T_\mu^4}{2(T_\mu^2 \Omega_{M1}^2 + 1)(T_\mu^2 \omega_{M1}^2 - 2\delta_{M1} T_\mu + 1)} - \frac{\Omega_{M2} K_2 U_{mm2} T_\mu^4}{2(T_\mu^2 \Omega_{M2}^2 + 1)(T_\mu^2 \omega_{M2}^2 - 2\delta_{M2} T_\mu + 1)} \right)$ ,  $[\Omega \cdot s]$ ;

$$A_{12} = \frac{T_\mu K_1 U_{mm1}}{2\sqrt{M_1^2 + N_1^2}}, \quad [\Omega \cdot s]; \quad A_{13} = \frac{T_\mu K_2 U_{mm2}}{2\sqrt{M_2^2 + N_2^2}}, \quad [\Omega \cdot s]; \quad A_{14} = \frac{2\Omega_{M1} K_1 U_{mm1} T_\mu}{B_1^2 - S_1^2}, \quad [\Omega \cdot s^4];$$

$$A_{15} = \frac{2\Omega_{M2} K_2 U_{mm2} T_\mu}{B_2^2 - S_2^2}, \quad [\Omega \cdot s^4]; \quad \varphi_1 = \arctg\left(\frac{N_1}{M_1}\right), \quad [degri]; \quad \varphi_2 = \arctg\left(\frac{N_2}{M_2}\right), \quad [degri]; \quad M_1 = T_\mu \Omega_{M1}^3 - 2\Omega_{M1} \delta_{M1} - T_\mu \Omega_{M1} \omega_{M1}^2,$$

$$[s^{-2}]; \quad N_1 = \omega_{M1}^2 - \Omega_{M1}^2 - 2T_\mu \delta_{M1} \Omega_{M1}^2, \quad [s^{-2}]; \quad M_2 = T_\mu \Omega_{M2}^3 - 2\Omega_{M2} \delta_{M2} - T_\mu \Omega_{M2} \omega_{M2}^2, \quad [s^{-2}]; \quad N_2 = \omega_{M2}^2 - \Omega_{M2}^2 - 2T_\mu \delta_{M2} \Omega_{M2}^2,$$

$$[s^{-2}]; \quad \omega'_{M1} = \sqrt{\delta_{M1}^2 - \omega_{M1}^2}, \quad [s^{-1}]; \quad \omega'_{M2} = \sqrt{\delta_{M2}^2 - \omega_{M2}^2}, \quad [s^{-1}]; \quad B_1 = 2T_\mu \omega_{M1}^4 + 8T_\mu \delta_{M1}^4 + 4\omega_{M1}^2 \delta_{M1} - 4\delta_{M1}^3 - 2T_\mu \Omega_{M1}^2 \omega_{M1}^2 + 2T_\mu \Omega_{M1}^2 \delta_{M1}^2 - 10T_\mu \omega_{M1}^2 \delta_{M1}^2, \quad [s^{-3}]; \quad S_1 = 4\omega_{M1}^3 + 2\Omega_{M1}^2 \omega'_{M1} + 2\omega_{M1}^2 \omega'_{M1} + 4T_\mu \delta_{M1}^3 \omega'_{M1} - 12T_\mu \delta_{M1} \omega_{M1}^3 - 2T_\mu \Omega_{M1}^2 \delta_{M1} \omega'_{M1} - 6T_\mu \omega_{M1}^2 \delta_{M1} \omega'_{M1}, \quad [s^{-3}];$$

$$B_2 = 2T_\mu \omega_{M2}^4 + 8T_\mu \delta_{M2}^4 + 4\omega_{M2}^2 \delta_{M2} - 4\delta_{M2}^3 - 2T_\mu \Omega_{M2}^2 \omega_{M2}^2 + 2T_\mu \Omega_{M2}^2 \delta_{M2}^2 - 10T_\mu \omega_{M2}^2 \delta_{M2}^2, \quad [s^{-3}]; \quad S_2 = 4\omega_{M2}^3 + 2\Omega_{M2}^2 \omega'_{M2} + 2\omega_{M2}^2 \omega'_{M2} + 4T_\mu \delta_{M2}^3 \omega'_{M2} - 12T_\mu \delta_{M2} \omega_{M2}^3 - 2T_\mu \Omega_{M2}^2 \delta_{M2} \omega'_{M2} - 6T_\mu \omega_{M2}^2 \delta_{M2} \omega'_{M2}, \quad [s^{-3}];$$

2)  $\delta_{M1} = \omega_{M1}$  ба  $\delta_{M2} = \omega_{M2}$  in the case of:

$$A_2(t) = A_{21} e^{-\frac{1}{T_\mu} t} + A_{22} \cos(\Omega_{M1} t - \varphi_1) - A_{23} \cos(\Omega_{M2} t - \varphi_2) + A_{24} e^{-\delta_{M1} t} - A_{25} e^{-\delta_{M2} t}, \quad (41)$$

Where is  $A_{21} = A_{11}$ ,  $[\Omega \cdot s]$ ;  $A_{22} = A_{12}$ ,  $[\Omega \cdot s]$ ;  $A_{23} = A_{13}$ ,  $[\Omega \cdot s]$ ;  $A_{24} = \frac{\Omega_{M1} T_\mu K_1 U_{mm1}}{(\omega_{M1}^2 - \delta_{M1}^2)(T_\mu \Omega_{M1}^2 + 3T_\mu \delta_{M1}^2 - 2\delta_{M1})}$ ,  $[\Omega \cdot s]$ ;

$$A_{25} = \frac{\Omega_{M2} T_\mu K_2 U_{mm2}}{(\omega_{M2}^2 - \delta_{M2}^2)(T_\mu \Omega_{M2}^2 + 3T_\mu \delta_{M2}^2 - 2\delta_{M2})}$$
,  $[\Omega \cdot s]$ .

3)  $\delta_{M1} < \omega_{M1}$  and  $\delta_{M2} < \omega_{M2}$  in the case where (38) the original of equation is as follows:

$$A_3(t) = A_{31}e^{-\frac{1}{T_\mu}t} + A_{32} \cos(\Omega_{M1}t - \varphi_1) - A_{33} \cos(\Omega_{M2}t - \varphi_2) + A_{34}e^{-\delta_{M1}t} \cos(\Omega_{M1}t - \varphi_3) - A_{35}e^{-\delta_{M2}t} \cos(\Omega_{M2}t - \varphi_4), \quad (42)$$

Where is  $A_{31} = A_{11}$ ,  $[\Omega \cdot s]$ ;  $A_{32} = A_{12}$ ,  $[\Omega \cdot s]$ ;  $A_{33} = A_{13}$ ,  $[\Omega \cdot s]$ ;

$$A_{34} = \frac{2\Omega_{M1}K_1U_{Mm1}T_\mu}{\sqrt{B_3^2+S_3^2}}, \quad [\Omega \cdot s]; \quad A_{35} = \frac{2\Omega_{M2}K_2U_{Mm2}T_\mu}{\sqrt{B_4^2+S_4^2}}, \quad [\Omega \cdot s];$$

$$B_3 = 8T_\mu\omega_{M1}^4 - 4T_\mu\delta_{M1}^4 - 8\omega_{M1}^2\delta_{M1} + 8\delta_{M1}^3 + 4T_\mu\Omega_{M1}^2\omega_{M1}^2 - 4T_\mu\omega_{M1}^2\delta_{M1}^2 - 4T_\mu\Omega_{M1}^2\delta_{M1}^2, \quad [s^{-3}]; \quad S_3 = 4T_\mu\delta_{M1}^3\omega'_{M1} - 6T_\mu\omega_{M1}^2\delta_{M1}\omega'_{M1} - 2T_\mu\Omega_{M1}^2\delta_{M1}\omega'_{M1} - 4\omega_{M1}^3 + 2\Omega_{M1}^2\omega'_{M1} + 2\omega_{M1}^2\omega'_{M1} - 12T_\mu\delta_{M1}\omega_{M1}'^3, \quad [s^{-3}]; \quad B_4 = 8T_\mu\omega_{M2}^4 - 4T_\mu\delta_{M2}^4 - 8\omega_{M2}^2\delta_{M2} + 8\delta_{M2}^3 + 4T_\mu\Omega_{M2}^2\omega_{M2}^2 - 4T_\mu\omega_{M2}^2\delta_{M2}^2 - 4T_\mu\Omega_{M2}^2\delta_{M2}^2, \quad [s^{-3}];$$

$$S_4 = 4T_\mu\delta_{M2}^3\omega'_{M2} - 6T_\mu\omega_{M2}^2\delta_{M2}\omega'_{M2} - 2T_\mu\Omega_{M2}^2\delta_{M2}\omega'_{M2} - 4\omega_{M2}^3 + 2\Omega_{M2}^2\omega'_{M2} + 2\omega_{M2}^2\omega'_{M2} - 12T_\mu\delta_{M2}\omega_{M2}'^3, \quad [s^{-3}]; \quad \varphi_3 = \arctg\left(\frac{S_3}{B_3}\right),$$

$$[degri]; \quad \varphi_4 = \arctg\left(\frac{S_4}{B_4}\right), \quad [degri].$$

For a case where sinusoidal variable mechanical moments are applied to the MD inputs (40), (41) and, given (42), Equation (34) is in the following form:

$$u_{\text{э.чнк.1}}(t) = U_{1m1}e^{-\frac{1}{T_\mu}t} \sin\omega_3 t + U_{1m2} \{ \sin[(\omega_3 - \Omega_{M1})t + \varphi_1] + \sin[(\omega_3 + \Omega_{M1})t - \varphi_1] \} - U_{1m3} \{ \sin[(\omega_3 - \Omega_{M2})t + \varphi_2] + \sin[(\omega_3 + \Omega_{M2})t - \varphi_2] \} + e^{-\delta_{M1}t} (U'_{1m4} ch\omega'_{M1}t - U''_{1m4} sh\omega'_{M1}t) \sin\omega_3 t - e^{-\delta_{M2}t} (U'_{1m5} ch\omega'_{M2}t - U''_{1m5} sh\omega'_{M2}t) \sin\omega_3 t, \quad (43)$$

Where is  $U_{1m1} = A_{11}\omega_3 I_{\text{экм}}$ ;  $U_{1m2} = \frac{1}{2}A_{12}\omega_3 I_{\text{экм}}$ ;  $U_{1m3} = \frac{1}{2}A_{13}\omega_3 I_{\text{экм}}$ ;  $U'_{1m4} = A_{14}B_1\omega_3 I_{\text{экм}}$ ;  $U''_{1m4} = A_{14}S_1\omega_3 I_{\text{экм}}$ ;  $U'_{1m5} = A_{15}B_2\omega_3 I_{\text{экм}}$ ;  $U''_{1m5} = A_{15}S_2\omega_3 I_{\text{экм}}$ ;  $[V]$ .

$$u_{\text{э.чнк.2}}(t) = U_{2m1}e^{-\frac{1}{T_\mu}t} \sin\omega_3 t + U_{2m2} \{ \sin[(\omega_3 - \Omega_{M1})t + \varphi_1] + \sin[(\omega_3 + \Omega_{M1})t - \varphi_1] \} - U_{2m3} \{ \sin[(\omega_3 - \Omega_{M2})t + \varphi_2] + \sin[(\omega_3 + \Omega_{M2})t - \varphi_2] \} + U_{2m4}e^{-\delta_{M1}t} \sin\omega_3 t - U_{2m5}e^{-\delta_{M2}t} \sin\omega_3 t, \quad (44)$$

Where is  $U_{2m1} = A_{21}\omega_3 I_{\text{экм}}$ ;  $U_{2m2} = \frac{1}{2}A_{22}\omega_3 I_{\text{экм}}$ ;  $U_{2m3} = \frac{1}{2}A_{23}\omega_3 I_{\text{экм}}$ ;  $U_{2m4} = A_{24}\omega_3 I_{\text{экм}}$ ;  $U_{2m5} = A_{25}\omega_3 I_{\text{экм}}$ ,  $[V]$ .

$$u_{\text{э.чнк.3}}(t) = U_{3m1}e^{-\frac{1}{T_\mu}t} \sin\omega_3 t + U_{3m2} \{ \sin[(\omega_3 - \Omega_{M1})t + \varphi_1] + \sin[(\omega_3 + \Omega_{M1})t - \varphi_1] \} - U_{3m3} \{ \sin[(\omega_3 - \Omega_{M2})t + \varphi_2] + \sin[(\omega_3 + \Omega_{M2})t - \varphi_2] \} + U_{3m4}e^{-\delta_{M1}t} \{ \sin[(\omega_3 - \Omega_{M1})t + \varphi_3] + \sin[(\omega_3 + \Omega_{M1})t - \varphi_3] \} - U_{3m5}e^{-\delta_{M2}t} \{ \sin[(\omega_3 - \Omega_{M2})t + \varphi_4] + \sin[(\omega_3 + \Omega_{M2})t - \varphi_4] \}, \quad (45)$$

Where is  $U_{3m1} = A_{31}\omega_3 I_{\text{экм}}$ ;  $U_{3m2} = \frac{1}{2}A_{32}\omega_3 I_{\text{экм}}$ ;  $U_{3m3} = \frac{1}{2}A_{33}\omega_3 I_{\text{экм}}$ ;  $U_{3m4} = \frac{1}{2}A_{34}\omega_3 I_{\text{экм}}$ ;  $U_{3m5} = \frac{1}{2}A_{35}\omega_3 I_{\text{экм}}$ ,  $[V]$ .

Graphs of functions (43), (44) and (45) are shown in Figures 7 ÷ 9, respectively.

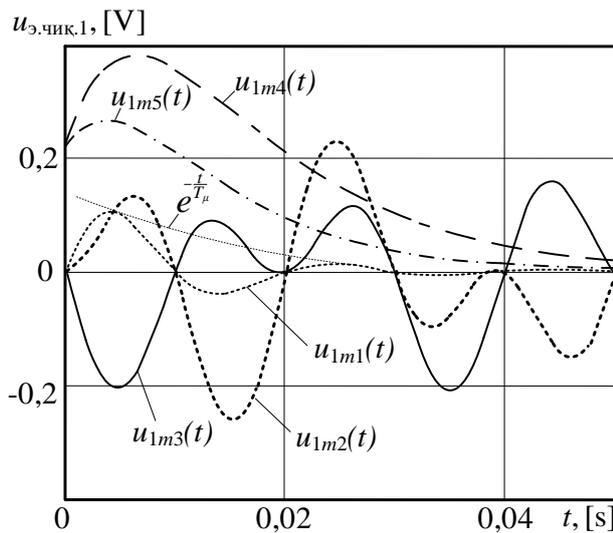


Figure 7 Transient voltage time diagrams when the input of MD is given the difference of harmonically varying moments and when  $\delta_{M1} > \omega_{M1}$  and  $\delta_{M2} > \omega_{M2}$

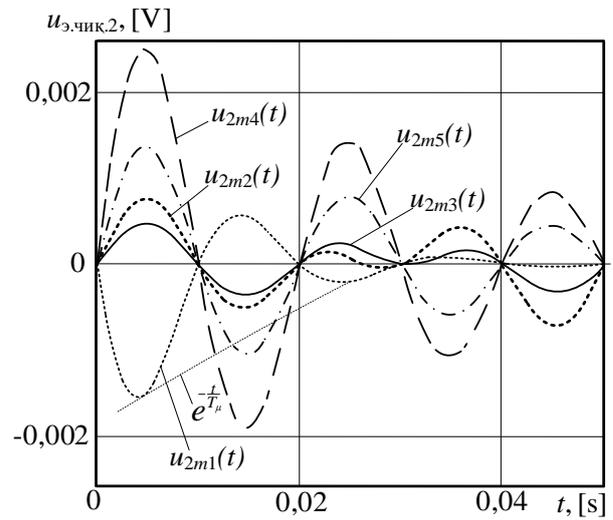


Figure 8 Transient voltage time diagrams when the input of MD is given the difference of harmonically varying moments and when  $\delta_{M1} = \omega_{M1}$  and  $\delta_{M2} = \omega_{M2}$

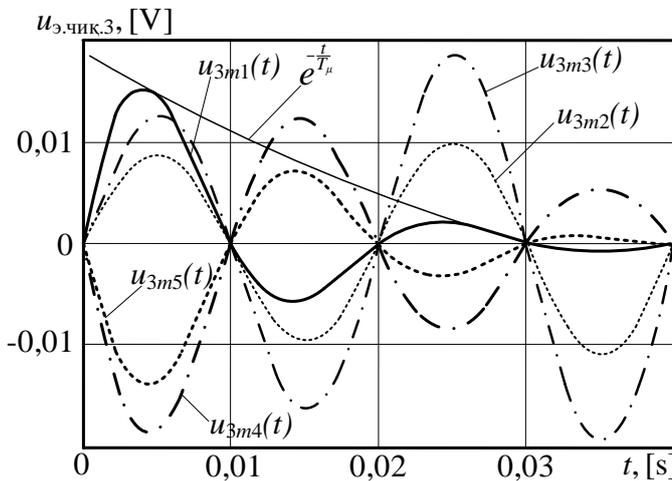


Figure 9 Transient voltage time diagrams when the input of MD is given the difference of harmonically varying moments and when  $\delta_{M1} < \omega_{M1}$  and  $\delta_{M2} < \omega_{M2}$

**CONCLUSION**

1. A new transformer measuring the difference in angular displacement supplied by the current source can be described in the form of a real differentiating link, given the difference in the output magnitudes of the two oscillating links at the input to the block diagram of the applied automatic control system.
2. A new transformer supplied by a current source consists of an algebraic sum of three free components, one of which is constant, the magnets of which are magnetic, and the two mechanical chains, depending on the time constants, respectively.
3. Transient voltage frequencies at the output of a new transformer converter supplied from the current source at two inputs with two torques of harmonic variable of different amplitude and frequency at the two inputs source current frequency ( $\omega_s$ ) and input size frequency ( $\Omega_M$ ) two constants consisting of a sum of signals equal to the difference and the sum, amplitude values will consist of an algebraic sum of three free constituents that are extinct depending on the time constants of the magnetic and two mechanical chains, respectively.

**REFERENCES:**

- 1) Amirov S.F., Babanazarova N.K., Yuldashev N.R. Dynamic characteristics of new remote transformer current transducers with compensating capacitor // International Journal of Advanced Research in Science, Engineering and Technology, Vol. 8, Issue 7, July 2021, India (05.00.00; №11)
- 2) Amirov S.F., Babanazarova N.K., Yuldashev N.R. Research of v dynamic characteristics of a new remote transformer current converter without compensating capacitor // Chemical technology. Control and management, International scientific and technical journal, Tashkent, 2021, №3, p. 32-40 (05.00.00 №5).

## Dynamic Characteristics of New Transformer Converters and its Measurement of Angle Slips Differences

- 3) Amirov S.F., Jumaboyev S.X., Yuldashev N.R. Dynamic characteristics of a new electromagnetic converter of three-phase current non-symmetry // Solid state technology.
- 4) Amirov S.F., Yakubov M.S., Jabborov N.G. ' . Theoretical Electrical Engineering: A Textbook for University Students. - Tashkent: ToshTYMI, 2016. - 481 p.
- 5) Amirov S.F., Jumaboev S.X., Yuldashev N.R. Dynamic characteristics of a new magnetomodulation converter measuring the difference of alternating currents // Bulletin of Tashkent State Technical University - Tashkent, 2020. - №2. - P. 116-125.
- 6) Amirov S.F., Jumaboev S.X., Yuldashev N.R. Dynamic characteristics of a new transformer measuring three-phase current symmetry // TashTYMI Bulletin - Tashkent, 2020. - №3. - P. 86-92.
- 7) Atamalyan E.G. Instruments and methods of measuring electrical velichin: Uchebnoe posobie. - Moscow: Drofa, 2005. - 415 p.
- 8) Goldstein A.E. Physical bases of measuring transformations: textbook. allowance Tomsk: Publishing House of TPU, 2008. - 253 p.
- 9) GOST 8.401 - 80 State system for ensuring the uniformity of measurements. Accuracy classes of measuring instruments. General requirements. Moscow: Standartinform, 2010. -11 p.
- 10) Zaripov M.F., Zainullin N.R., Petrova I.Yu. Energy-information method of scientific and technical creativity. - Moscow: VNIPI GKNT, 1988. - 124 p.
- 11) Kelim Yu.M. Typical elements of automatic control systems. Tutorial. - Moscow, FORUM: INFRA-M, 2002. -384 p.
- 12) Kim K.K., Anisimov G.N., Barbarovich V.Yu., Litvinov B.Ya. Metrology, standardization, certification and electrical measuring equipment: Textbook. - St. Petersburg: Peter, 2006. - 368 p.
- 13) Kulikovskiy L.F., Konyukhov N.E., Mednikov F.M. Transformer functional converters with profiled secondary circuits. Moscow, Energy, 1971. - 103 p.
- 14) Shishmarev V.Yu. Fundamentals of automatic control Proc. allowance for universities - Moscow, Yurayt Publishing House, 2008. - 350 p.



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## The Impact of Achieving the Objectives of the Overall Safety Policy on Economic Development in Palestine



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### INTRODUCTION

The primary objective of macro prudential policy is to contain systemic risks or large-scale financial instability<sup>1</sup>. Therefore, the systemic risk can definition will be as “the risk that financial instability will spread on a large scale and lead to impeding the functioning of the financial system to an extent that affects growth and welfare.”

Achieving overall safety in the financial sector of any country may conflict in one way or another with the goals of economic development, or as a least, it might contradict some of those goals in that country. Macro prudential efforts to mitigate systemic risks include a series of policy interventions in the financial and credit markets, as well as a variety of countercyclical stabilization techniques designed to influence price formation, credit flows, and direct investment from the domestic economy to other regions outside this economy. Adequately tested so far.

The IMF survey of countries' practices in this area shows that a number of countries have used some macro safety tools to address systemic risks at specific times.

The recent global financial crisis has prompted more countries to use such tools, with an increasing focus on rapid asset growth and the accumulation of advantage. The application of such instruments will work as a financial ceiling. These instruments like the value-to-loan (LTV) and debt-to-income (DTI), aim to combat property booms, capping credit growth, reserve requirements, and dynamic provisions. However, the effectiveness of such instruments does not appear to depend on the stage of economic development, or the type of exchange rate indicates that safety tools. Therefore, the instruments are set to be useful in a wide range of countries, as the opposite of the Palestinian economy that lacks the tools of monetary policy and exchange rate policies, it is expected that the benefit from the application of such policies will be greater.

Nowadays, a visible contradiction occurs while implementing fiscal and monetary policies in any economy, which can directly diminish the scale of their effectiveness. This requires a strong coordination between the makers of these policies to avoid possible contradictions, as it has become a necessity to extend coordination to include tools of overall safety. In other words, macro prudential regulation, or macro-safety policies, has become a third arm of economic policy along with traditional fiscal policies and monetary policy tools (Jones, 2011).

The development of an effective overall safety policy framework requires the identification and development of a set of policy tools and operational guidelines for their use. These principles and guidelines should include effective mechanisms for resolving coordination and compliance problems. There are some inconsistencies when using these tools at the micro and macro level. Therefore, mechanisms must be developed, to ensure consistency among them, as there is still no comprehensive nor an agreed theoretical framework. It is too early to select and calibrate a specific set of macro prudential policy tools.

There is a wide range of policy tools available in this area, which include:

- Tools to address risks to financial stability arising from excessive credit expansion and increasing asset prices, including but not limited to, dynamic capital reserve, dynamic provisioning, loan-to-value (LTV), and debt-to-income (DTI)
- Tools to address the mechanisms of systemic risk amplification associated with financial advantage, such as capital instruments.
- Tools to mitigate structural weaknesses in the system and reduce systemic repercussions in times of stress.

The framework is also an important supporting tool, along with the infrastructure and modern payment and settlement systems.

<sup>1</sup> European Central Bank

# The Impact of Achieving the Objectives of the Overall Safety Policy on Economic Development in Palestine

## PURPOSE OF THE STUDY

The subject of the study is one of the recent developments that have begun to appear in the past few years, or even less, as indicated by some literary references included in the study, some of which date back to the current year 2021.

The issue of the potential contradiction between macro safety policies, economic development, and discussions on this subject are still in their infancy, and this is mainly because total safety policies are relatively recent in application. Since they began to be adopted after the global financial crisis in 2008, and it is still difficult to ascertain of its effects on economic growth, especially in the end. Prior to the global crisis, these policies were unknown except for some small-scale applications in a few countries, such as dynamic provisions in Spain, some capital requirements in India, and loan-to-value ratio in South Korea.

From this point of view, this study aims to examine the contradictions existing in the Palestinian economy, between the application of the requirements of total safety in the Palestinian banking sector and the objectives of local economic development. It also seeks to suggest some possible ways to overcome the points of contradiction between these goals or at least reduce their severity, if any. To this end, the study reviews a group of research papers in this field within the literary review section, as well as some practical applications and experiences of some countries in order to benefit from them if possible.

## LITERATURE REVIEW

Macro-safety policies are designed to mitigate the effects of financial and economic crises, but at the same time, they may affect economic growth.

Long before the term macro-safety was coined, macro prudential policies main usage was to address financial stability concerns, particularly in emerging market economies. The interest in them has increased significantly in recent years during and after the major global financial crisis (2007-2009), but even today, there is still debate about understanding these policies and their macroeconomic effects. For example, while the motive behind the use of macro prudential policies is to contain or mitigate systemic risks and thus contribute to macroeconomic stability, these policies may harm economic activity and growth by affecting the volume of credit and investment. (IMF-FSB-BIS 2016), Galati and Moessner (2017)), (Sanchez and Rohn (2016))

Of course, judging the effectiveness of precautionary policies or macro safety policies remains a difficult task to achieve, as it was found in the basis to reduce and mitigate the effects of severe financial crises, which are characterized by two important characteristics:

1. The slow relative recurrence of major financial crises.
2. The difficulty of linking these crises to a specific cause or even to a specific set of causes.

Therefore, there is a wide consensus that evaluating the effectiveness of precautionary policies is through evaluating their effects on economic growth and the fluctuations of the economy in the long term.

In order to empirically investigate the extent of cooperation between total safety policies and economic performance, with the help of data collected from 64 countries divided between developed and emerging, the data was measured by production and growth fluctuations over a period of five years. The researches and studies of a wide range of specialists concluded similar results, which can be summarized as follows: the following:

1. That the more a country uses macro-safety policies, the per capita GDP growth rate tends to rise in that country, as well as the volatility in GDP growth will become less severe. However, there are no enough evidences found to date that non-use of Total safety policies lead to a decline in the per capita share and more severe fluctuations in the growth of the gross domestic product. (No tradeoff)
2. The good effects of the overall safety policies related to the growth and fluctuations of the domestic product depend on the degree of economic openness and the degree of financial development. For economies that are, economically open, or financially sophisticated (but not both) macro prudential policies tend to be less effective. As for economies that enjoy both elements (openness and development), macro prudential measures are highly effective.
3. As found that irregular macroprudential interventions usually hinder economic growth.

(Pierre-Richard Agenor, Yavuz Arslan, Claudio Borio, Stijn Claessens, Benjamin Cohen, Dietrich Domanski, Mathias Drehmann, Ingo Fender, Enisse Kharroubi, Hyun Song Shin, Nikola Tarashev and Kostas).

The adoption of macroprudential policies around the world in the past few years has led to an ongoing debate about the effects of these policies and their interaction with existing conventional monetary policies.

## Possible impact channels of macro-safety policies on growth and production

Macro prudential policies are usually designed to increase flexibility in the financial system and reduce systemic risks arising from financial intermediation. As argued that macro-safety policies may succeed in supporting macroeconomic stability,

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but at the cost of reining in economic activity and long-term growth. That is, there is a trade-off, and a reciprocal relationship between stability and sustainable prosperity. (Agenor and Silva 2017).

It is necessary to note that the interest in the interrelationship between the tools of total safety and economic growth is still limited until now. This relation is limited to a specific set of these tools, such as the capital buffer to counter cyclical fluctuations, the dynamic allocations of banks, and measuring the short-term impact of these tools on the margins and quantities of lending. There are strong opinions suggesting that, poorly designed overall safety devices will necessarily hamper long-term economic growth (Drehmann and Gambacorta 2012).

On the other hand, in contrast to the effect of poorly designed instruments, macroprudential measures can also boost economic growth. Logically, these tools are designed to increase the flexibility of the financial system and facilitate the financial cycle. In addition, well-designed macroprudential instruments can mitigate the adverse effects of capital flow volatility on economic growth, by encouraging temporary capital accumulations (Neanidis 2017).

From the foregoing, the positive impact of aggregate safety tools on economic growth can be summarized through two channels:

First: macro prudential policies can prevent or at least limit the occurrence of financial crises, which are usually followed by marked declines in economic performance and growth.

Second: In the event that the decline in growth is caused by fluctuations in the macro economy and financial fluctuations, and since macroprudential policies are designed to reduce and address these fluctuations, it is logical to link macro safety tools and policies positively to long-term growth.

The following is a more in-depth explanation of the overlap between the total safety tools and other policies:

### ➤ Total safety policies & monetary policies

Both macro and monetary safety policies are useful as a countercyclical tool. While monetary policy aims primarily at price stability and economic stability, macro safety tools aim at achieving financial stability. Thus, it becomes possible for the tools of these policies to interact with each other, which may reinforce each other, or vice versa, each of which may reduce the effectiveness of the other. International Monetary Fund (2013).

Even when the policies work perfectly, monetary policy alone cannot be expected to achieve financial stability effectively or efficiently, and that is due to the fact that, stability is not always linked to the level of interest rate or the degree of liquidity in the financial system that monetary policy influences to mitigate the effects of financial distortions. Nor when fiscal imbalances are more severe in some sectors of the economy than in others, monetary policy becomes less effective.

On the other hand, the use of macroprudential policies to manage aggregate demand may lead to additional distortions by imposing restrictions beyond where financial instability originates. For example, limiting the growth of public credit can often be very harmful to economic growth. Thus, when both policies are available, it is advisable to maintain the primary focus of monetary policy on price stability and macroprudential policies on financial stability.

Nevertheless, monetary policy affects financial stability through:

- Affect advantage and short-term or foreign currency borrowing. Dell'Ariccia & Marquez (2013).
- By influencing asset prices, relevant external factors, and advantage cycles.

Similarly, macroprudential policies can affect GDP through the processes of regulating the amount of credit in the economy.

It is well established that when macroprudential or monetary policies work incompletely, which is the prevailing situation in general, but to varying degrees from one country to another in the real world, it is expected that the results of these policies will not be perfect and accurate in achieving the desired objectives. On the one hand, there are problems of inconsistency and timing, in addition to political and stakes.

(Curdia & Woodford 2009, Carlstrom & Fuerst 2010).

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### Total Safety Matrix

The Source of external factors	Determinants and controls related to borrowers	Determinants and controls at the level of the consolidated budgets of financial institution (Assets & Liabilities)	Capital requirements, provisions, additional fees	Taxes and Levies	Others including enterprise infrastructure
Expansion Phase	Limits on borrowing rules (DTI, LTI, LTV)	Limits and controls on mismatches (In foreign currencies, interest rate) mandatory reserve	Countercyclical capital buffers, leverage control, and dynamic provisions	Taxes or levy on specific assets and/or liabilities	Accounting systems, change in compensation, market discipline, governance
Deflation Phase	Adjustments to specific loan	Provisions and criteria control on liquidity (NSFR, LCR)	Countercyclical capital buffer, dynamic provisions	Taxes or levies on non-core liabilities	Standardized products Safety net (central bank, treasury, liquidity, quantitative support)
The shock of contagion from systemically important institutions	Different determinants on the components of assets and activities. (Vicker, Volckers)	Specific institutional controls for bilateral financial exposures.	Additional fees and capital requirements related to the existing systemic risk	axes, different levies according to external source	Institutional infrastructure. (resolutions, various information)

Blue: relieve the cycle, yellow: enhance flexibility, green: dispel the load from the cycle

### The status quo in Palestine and the contradictions

The absence of the national currency in the Palestinian economy is one of the distinguishing features of this economy, as the absence of the national currency necessarily led to the loss or weakness of monetary policy tools in this economy.

### Macroeconomic indicators in Palestine for the period 2018-2020<sup>2</sup>

	2016	2017	2018	2019	2020
GDP Growth	10.3%	4.7%	0.9%	4.8%	-8.5%
Unemployment rate	26.9%	25.7%	26.2%	24.0%	27.8%
Inflation Rate	-0.2%	0.2%	-0.2%	1.6%	0.5%
Public Debt/ GDP	16.1%	15.8%	14.6%	16.4%	23.5%
Current Account/ GDP	-13.9%	-13.2%	-13.2%	-10.7%	-9.3%
Customer Deposit Growth	9.5%	13.0%	2.1%	9.5%	13.1%
Credit Growth	27.0%	17.9%	8.6%	5.1%	11.5%

Source: Palestinian Monetary Authority data, Palestinian Central Bureau of Statistics, World Bank reports

#### ➤ World Bank Estimation:

The high unemployment rate in the Palestinian economy is one of the main problems facing this economy, and it is noticeable that the unemployment rate is not affected by the growth rates in the gross domestic product. Logically, we assume that

<sup>2</sup> Some of the Monetary Authority's data attributed to the GDP are still preliminary data

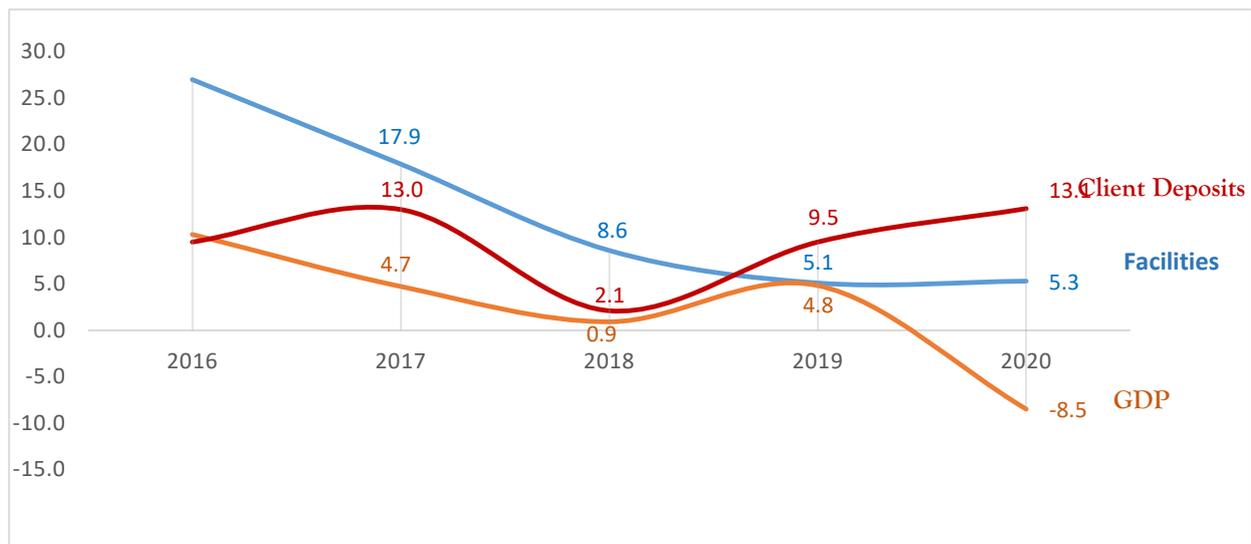
## The Impact of Achieving the Objectives of the Overall Safety Policy on Economic Development in Palestine

unemployment rates will decline during periods of high growth and vice versa. However, this reciprocal relationship between output growth and unemployment are not visible in the Palestinian economy, and the reason for this may be due to the fact that, the growth in the gross domestic product comes from growth in the West Bank, while the high unemployment rate comes from the Gaza Strip. It can also be due to the presence of a percentage of the Palestinian labor force working in Israel or that the shadow economy constitutes not a small percentage of the Palestinian economy.

Regardless of the reason for this, it is natural that fighting high unemployment rates requires investment growth and high production growth rates. It is also noted that there is a continuous growth from year to year in customer deposits in the Palestinian banking sector. Palestinian economy.

In addition to the above, there is a structural deficit in the Palestinian current account, which averaged about 12% of the GDP during the past five years. Also, the government public debt amounted to about 23.5% of GDP at the end of 2020, up from about 16.4% at the end of 2019.

**Figure (1): Quarterly growth of customer deposits, private sector facilities and GDP for the period 2016- 2020**



**Source:** Statistical Bulletin - Palestinian Monetary Authority, Palestinian Central Bureau of Statistics

The previous figure indicates a near-continuous fluctuation in the growth rates of customer deposits and credit facilities provided to the Palestinian private sector, as well as in the growth of GDP. It is also noted that the recorded growth rates are usually positive, especially on an annual basis, but they are remarkably volatile, with the exception of the growth The gross domestic product for the year 2020, which recorded a negative rate, is an exceptional year at the level of the world as a whole.

The growth rates recorded for both customer deposits and private sector facilities indicate a lack of consistency in the growth rates of these two variables, noting that the fluctuation in the growth of facilities provided to the private sector is less severe compared to the fluctuations in the growth of customer deposits. It is natural that the facilities are subject and affected by the policies set, whether at the individual level of banks, or at the overall level through the instructions of the Palestinian Monetary Authority, while deposits remain outside the control or influence of these policies.

### Financial depth

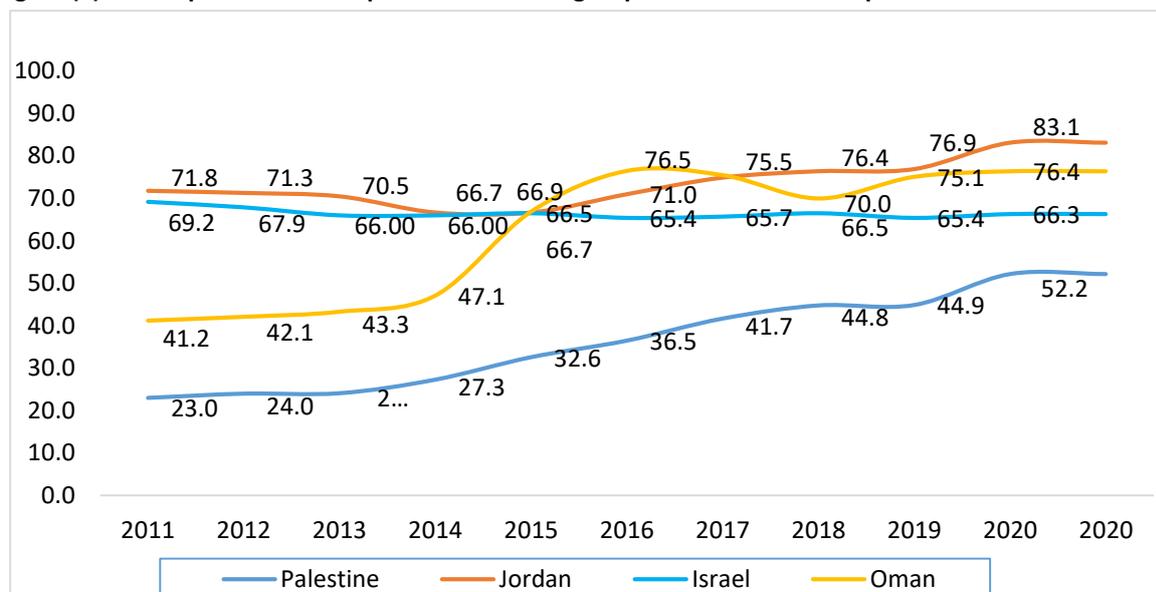
#### The ratio of credit provided to the private sector to GDP

This indicator can also be used as another function of the equilibrium point that can be reached for the value of credit in the Palestinian economy.

The collected data from the International Monetary Fund and the World Bank indicates that, the ratio of credit provided to the private sector to GDP at the global level reached about 148% at the end of the year 2020. Once compared, we can see that it was about 132% at the end of the previous year, and in the group of Arab countries, this ratio in Qatar reached about 137% as the highest Arab country, while in Sudan, it reached about 8%, as the lowest among the Arab countries. It is noteworthy that the increase in the global percentage is due to the increase in this percentage in the United States, where it reached about 216% at the end of the year 2020.

## The Impact of Achieving the Objectives of the Overall Safety Policy on Economic Development in Palestine

➤ **Figure (2): Credit provided to the private sector in a group of countries for the period 2011-2020**



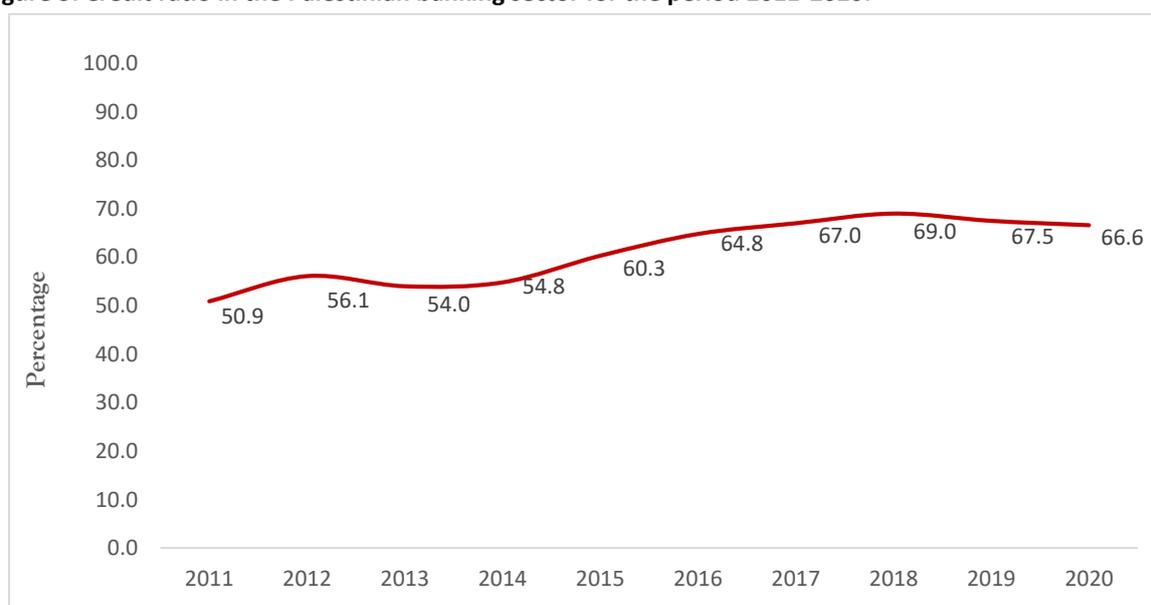
Source: [worldbank.org/indicator/FS.AST.PRVT.GD.ZS](http://worldbank.org/indicator/FS.AST.PRVT.GD.ZS)

In Palestine, the ratio of credit provided to the Palestinian private sector to the nominal GDP at the end of 2020 was about 52.2%, up from 44.9% at the end of the previous year. Historical data for the development of this indicator indicates an upward trend in it from year to year, as this percentage was at 23%, said ten years ago, and was below this percentage before that.

The available World Bank data on this percentage in the group of Middle East and North African countries indicates that, it amounted to the total of the countries of this group about 61.2% at the end of the year 2020. This indicates that there is room to raise this percentage in Palestine by 10 percentage points to become around the average of countries the group, which means that the Palestinian private sector has been deprived of about \$150 million in facilities that are supposed to be available from the Palestinian banking sector for the year 2020 only. It is noteworthy here that the amount of facilities obtained by the Palestinian private sector during the year 2020 amounted to about 396 million dollars, while it could have reached about 446 million dollars. Credit to customer deposit ratio

This percentage in the Palestinian banking sector at the end of the year 2020 amounted to about 66.5%, declining from about 67.5% at the end of the previous year. Figure (3) shows the historical development of this percentage.

➤ **Figure 3: Credit ratio in the Palestinian banking sector for the period 2011-2020:**



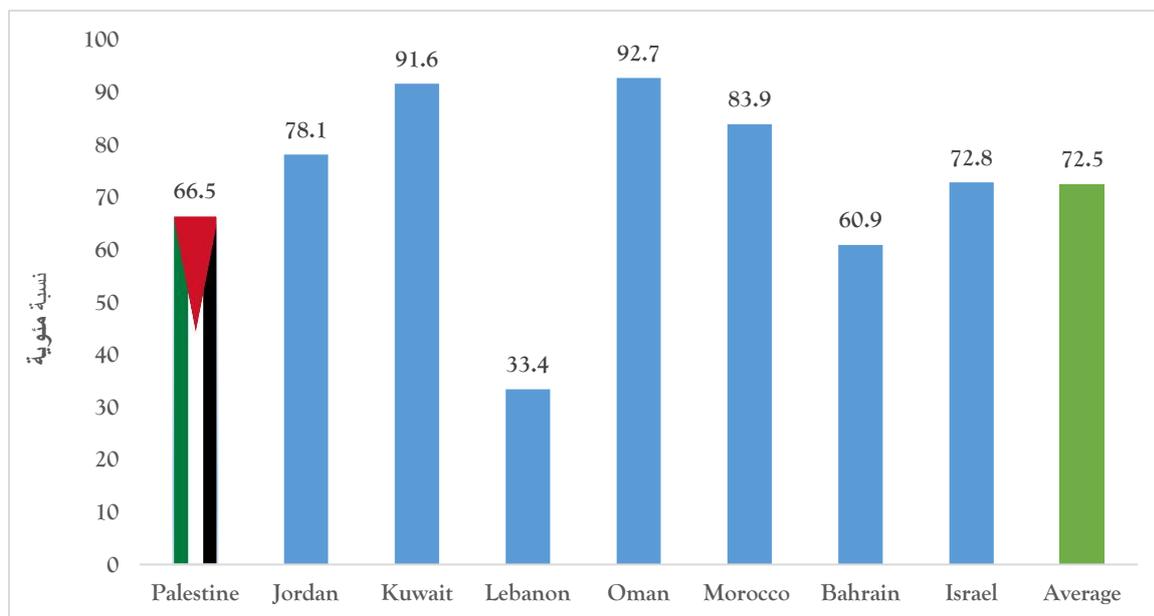
Source: Palestinian Monetary Authority data

## The Impact of Achieving the Objectives of the Overall Safety Policy on Economic Development in Palestine

This ratio is considered one of the ratios that may bear a contradiction between the requirements of overall safety and the requirements of economic growth. On the one hand, the necessities of overall safety require keeping this ratio relatively low at certain limits to preserve the safety of the banking sector and depositors' money and reduce banking default rates. In contrast, the requirements of Economic growth and the increase in production push the direction of raising this percentage to the maximum possible extent.

In the absence of a clear international standard on this ratio, and with the aim of finding a possible equilibrium point for the credit ratio in the Palestinian-banking sector, the average of this ratio in the group of neighboring countries may be a good and acceptable indicator in this field.

➤ **Figure 4: The ratio of credit facilities to customer deposits in a group of countries at the end of the year**



Source: ceicdata

In a group of countries in the region and neighboring countries, this percentage ranged between 33.4% in Lebanon and 92.7% in the Sultanate of Oman, while the average percentage in the countries mentioned in the previous figure was about 72.5%. This means that the percentage in the Palestinian economy is less than the indicated rate by about 6 percentage points, which means that the Palestinian economy in general, and the private sector in particular, has been cumulatively deprived of about \$1.37 billion of facilities until the end of 2020.

Although raising the ratio of facilities to customer deposits will increase risks and require more capital for banks to face these risks, the economic benefits on the other side, both in terms of economic growth as well as in terms of raising the profitability of banks because of increasing facilities, require bearing those risks.

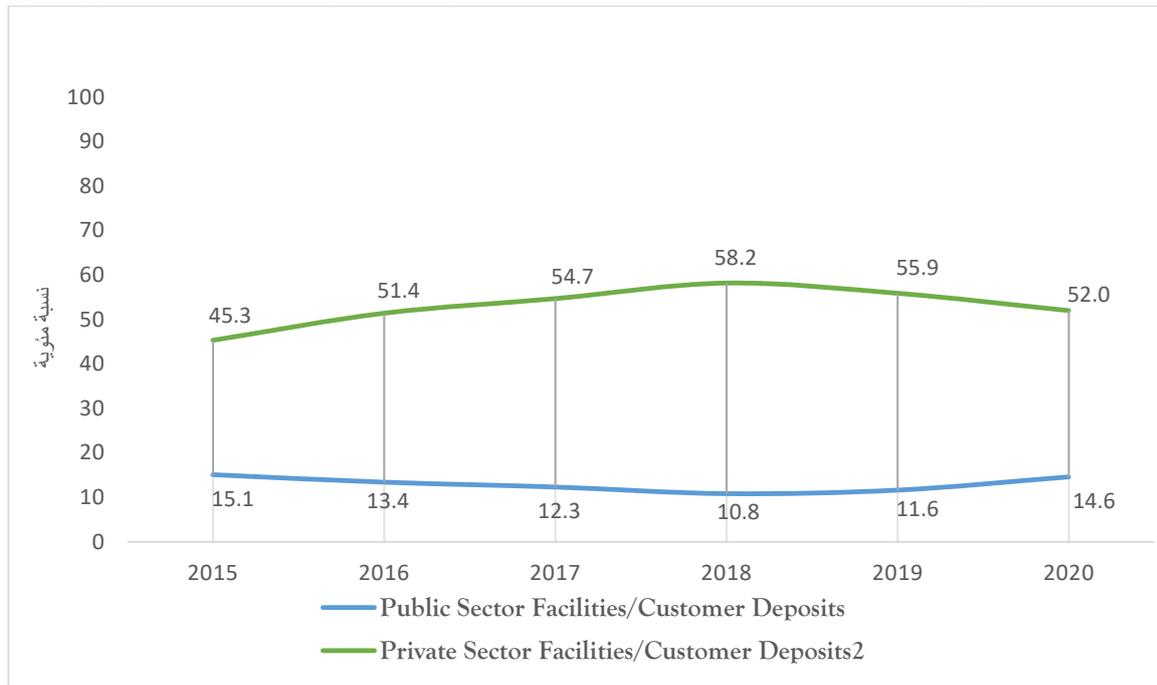
However, the capital adequacy ratio for all banks in Palestine reached about 15.75% at the end of the year 2020, which is higher than the international requirements for sufficiency ratios, as well as higher than the local requirements for sufficiency ratios, which means that there is a margin to increase the credit facilities ratio.

### Crowding out the public sector for the private sector

The Palestinian public sector depends to varying degrees from time to time on the Palestinian banking sector to finance part of its expenditures according to the economic and political situation prevailing in the Palestinian territories.

The value of the facilities provided to the Palestinian public sector until the end of the year 2020 amounted to about \$2.2 billion, constituting 21.9% of the total facilities, and about 14.6% of customer deposits. When the private sector facilities are added, the percentage of facilities to customer deposits becomes 66.6%, as explained previously.

➤ Figure (5): Facilities from the public and private sectors out of the total facilities for the period 2015-2020



The previous figure (5) suggests that there is a phenomenon of crowding out of public sector facilities with the facilities of the private sector in the Palestinian economy, where there is a reciprocity in the ratio of each of the two variables (private sector facilities, public sector facilities) to customer deposits over time. As the highest ratio of private sector facilities to customer deposits was matched by the lowest ratio of public sector facilities to customer deposits at (58.2%, 10.8%) in 2018, and vice versa in 2015, when the ratios were (45.3%, 15.1%) and this applies to the rest of the years in the shape.

Here, as noted that the proposed increase in the volume of facilities as a percentage of customer deposits by 6 percentage points to reach 72.5% would be entirely directed to the share of the private sector. This increase can be formed through:

1. Increasing the private sector's share of facilities at the expense of the public sector's share due to the phenomenon of crowding out.
2. The private sector's share of the facilities can be increased by increasing the size of the facilities without compromising the facilities of the public sector, by continuing to reduce the volume of foreign investments.
3. The share of the private sector can be increased from the previous two exporters together. That is, by increasing the volume of facilities and decreasing the public sectors share at the same time.

It is noteworthy here that the Palestinian Monetary Authority had set a ceiling for public sector borrowing from banks operating in Palestine, so that the ceiling would be equal to the total bank ownership rights. The Monetary Authority's data indicate that the value of public sector facilities canceled about 112.1% of banks' equity at the end of 2020, which means that public sector facilities exceeded banks' ownership rights by about \$238 million.

### Supply and demand for credit facilities

#### 1. Supply side:

Banks operating in Palestine are the main source of credit facilities in Palestine, and therefore they represent the largest part of the supply side of the facilities, while the Palestinian Monetary Authority influences this offer through the instructions it issues to banks in this regard. In the absence of monetary policy tools that affect the volume of credit, the instructions of the Monetary Authority acquire great importance in this field. Especially since these instructions are more likely to be closely related to the tools of total safety, whether derived from international instructions and standards such as allocations, reserve ratios, adequacy ratios and other tools. Overall safety, or those specific to the Palestinian case, such as the ratios of foreign investments, the ratios of government debt, and others.

Moreover, through what was stated in the study regarding the low rates of financial depth in the Palestinian economy compared to the prevailing rate in neighboring countries, which indicates the presence of sources at banks to increase the side of the supply of facilities (foreign investment, public sector facilities, increasing facilities as a percentage of customer deposits).

#### 2. Demand side:

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It is not possible to determine the size of the demand for credit facilities in the Palestinian economy accurately, but it is possible to look at some indicators that may help to know the presence of demand capable of absorbing the supply of credit facilities if this increase in supply is allowed. Among the indicators that indicate the existence of this demand:

- The presence of requests for facilities rejected by the banks.
- An increase in the supply of facilities can create demand for them (Say's law)
- Existence of other sources of facilities other than banks.

It is important to note that, the presence of an unmet demand for loans will necessarily lead to a part of this demand going to other channels, which will revive the phenomenon of shadow banks and moneylenders.

### The credit gap in the Palestinian banking sector

One of the results of the global financial crisis in late 2008 was that global institutions concerned with the safety of the financial and banking sectors around the world. Such as the International Monetary Fund, the World Bank, the Basel Committee, the Bank for International Settlements, and other international institutions that intensified the processes of analysis and research, and the development of supervisory and early warning tools. This facilitated the mission to avoid the world from falling back into deep financial crises. The credit gap is one of the emerging indicators in this context.

The credit gap is defined as; the deviation of the growth ratio of bank credit to nominal GDP in the short term (usually a quarter) from the long-term nominal credit growth curve (from the long-term average)<sup>3</sup>.

It is one of the indicators approved by the Basel III Committee to monitor the volume of credit granted by banks to the private sector, as international experiences have proven that the significant increase in the growth of credit directed to the private sector contributes to the occurrence of financial crises. The Basel Committee recommended that this deviation should not exceed 2% in the positive direction from the long-term growth curve, while deviation from that curve by any percentage in the negative direction does not constitute a source of risks, even if it reflects a state of atrophy in the volume of facilities provided to the sector. The private sector, or high growth in nominal domestic product, is not accompanied by sufficient and supportive growth in credit facilities directed to the private sector.

The rate of 2% or more, determined by Basel committee as a growth in the private sector facilities gap, indicates the existence of risks from this growth, was determined after realizing that this percentage increased to more than 2% was a common characteristic of most countries that suffered deeply from the financial crisis. This does not necessarily mean that a financial crisis will occur when the gap exceeds 2%, or even that it will not occur when the gap is less than 2%. Rather, this indicator is helpful and complementary to a wide range of other indicators through which the safety of the sector is recognized. banking as a whole.

It is worth noting here that this indicator was not developed after the global financial crisis, but it existed long before the crisis, and it was calculated regularly in some developed countries to guide it in the process of regulating and controlling bank credit. This indicator commonly known in the United Kingdom, but its importance gained additional momentum after the recent global financial crisis, until the Basel Committee adopted it and recommended that countries should calculate it, and considered it one of the obligations that countries must provide when implementing the decisions and recommendations of Basel III.

Later, in late 2013, the International Monetary Fund approved the credit gap index provided to the private sector as one of the financial safety indicators that different countries must calculate and prepare within the list of financial safety indicators.

### Gap analysis in the Palestinian banking sector during the past five years

A remarkable increase was observed in the credit gap of the Palestinian banking sector in the second half of the year 2016, as the credit gap recorded 5.92% and 3.82% for the third and fourth quarters of that year, respectively. It seems that the growth in credit facilities that occurred during that period was not matched by an adequate growth in the GDP, which pushed the gap to rise as shown in Figure (6).

Figure (6): The credit gap of the Palestinian private sector for the period from the first quarter 2000 to the fourth quarter 2020<sup>4</sup>.

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<sup>3</sup> Bank for International Settlements

BIS (2010): Guidance for national authorities operating the countercyclical capital buffer

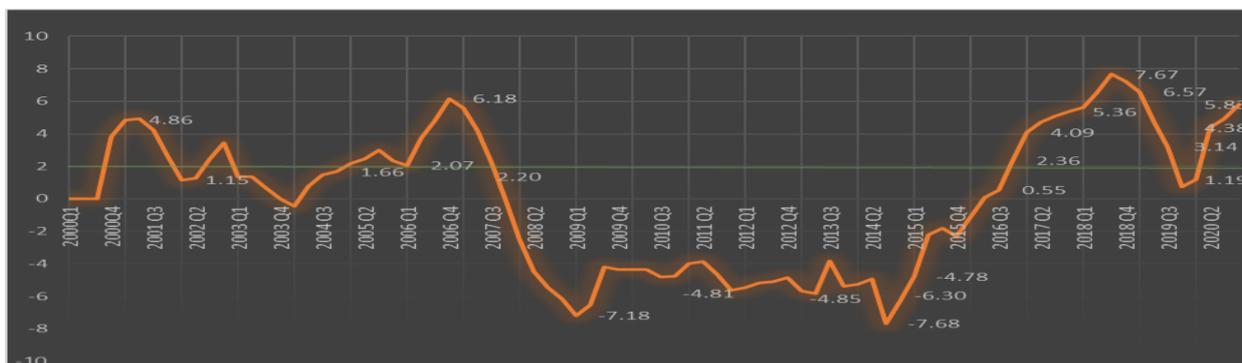
<sup>4</sup> Calculating the percentage of facilities to the sum of the first three quarters of the quarterly GDP in a particular year in addition to the value of the domestic product for the fourth quarter of the previous year.

Draw the general trend curve for the ratio of growth in facilities to nominal GDP using the method:

Hedrick-Priscott Filter with  $\lambda = 400,000$  Basel III Recommendation.

The credit gap is measured by the difference between the short-term (Q) nominal facility-to-nominal GDP ratio to the long-term curve or trend of that ratio, calculated in the previous step.

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The gap continued to rise above the 2% barrier throughout the years 2017 and 2018 because of the continued growth in credit facilities without sufficient growth in nominal GDP, reaching the gap to its highest level in the third quarter of 2018 at 7.67%. After that, it returned to decline until it fell below the 2% barrier in the fourth quarters 2019; the first is 2020, as shown in the previous figure. The relative growth in nominal GDP had a positive impact on the decline of this percentage, in addition to a slight negative growth in credit facilities in that period, where the credit gap ratio amounted to about 0.72%, 1.19% for the last two quarters of 2019 and the first of 2020.

Furthermore, the economic and financial situation suffered at the beginning of the second quarter of 2020, during the peak of worldwide COVID-19 pandemic, and the closures that accompanied to that situation, caused a sharp decline in economic activities and the deterioration of business on both local and global markets. This complication negatively and significantly affected the economic growth of almost all countries. The Palestinian economy was isolated from these developments, as it suffered great losses, in addition to the Israeli side's seizure of Palestinian clearance funds. All of this resulted in a decline in economic growth, which recorded a negative growth of -8.5%, according to estimates by the World Bank.

This decline in growth, led to a rise in the credit gap again, as it initially rose to 4.38% in the second quarter of the year 2020 and continued to rise to reach 5.83% by the end of the year. If it had not been for the relative stability in the growth of credit facilities that fluctuated slightly during the same period, the rise in the gap would be much greater than the level it reached.

The credit gap is one of the strong links between the financial sector and the real sector in the economy, as it links the credit facilities provided to the private sector and the growth in nominal domestic product. It is also directly proportional to the credit facilities and inversely to the growth in nominal GDP (assuming the stability of the other variable), and it is One of the indicators that may bear a clear contradiction between the objectives of overall safety and economic growth. On the one hand, the requirements of overall safety push towards keeping this ratio below the 2% barrier, which means reducing credit facilities when the ratio is above this barrier. On the other hand, stimulating economic growth requires increasing facilities. Credit rating even when this ratio is above the 2% barrier.

This state of contradiction applies to the Palestinian economy in the past few years, where the ratio of the credit gap at the end of the year 2020 reached about 5.83%, at the same time when the nominal GDP recorded a negative growth of about 8.5%. In this case, reducing the gap requires reducing the facilities provided to the sector The Palestinian private sector, while stimulating growth requires increasing those facilities (short term).

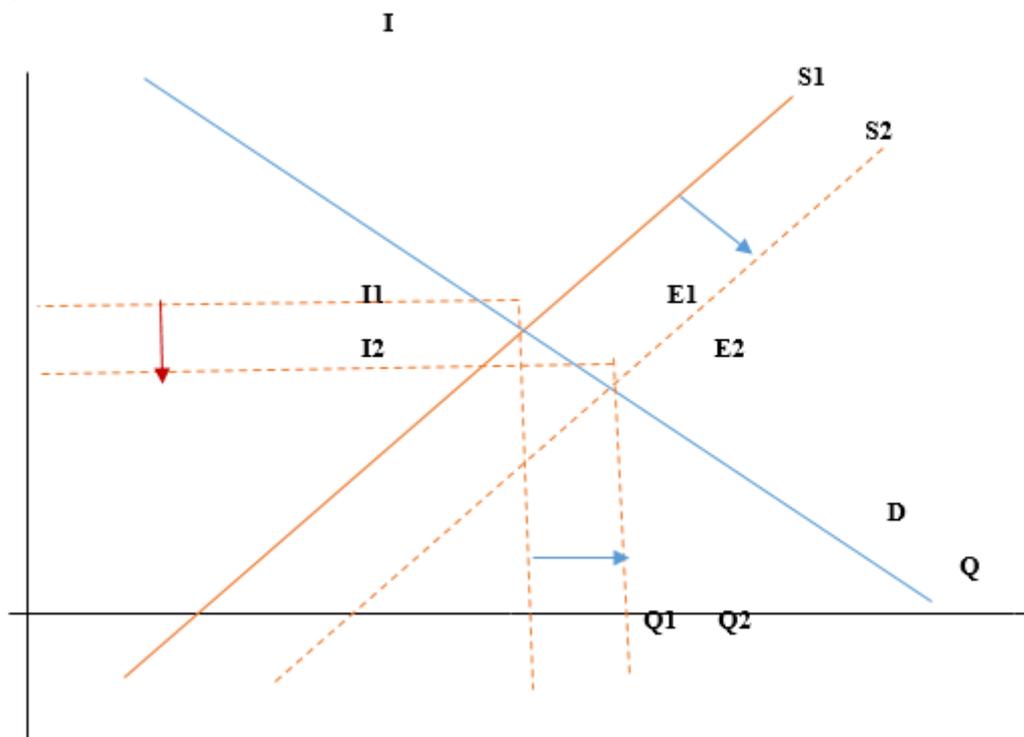
In the medium term, the increase in the facilities could increase the credit gap at first, but the increase in the facilities will positively affect the growth of the GDP, making the gap decrease again. As it is illogical to reduce credit facilities in light of the decline in growth in the GDP, as such a reduction will exacerbate the decline in growth, which in turn will increase the value of the gap, and vice versa.

### Increasing the supply of facilities improves growth and competition and makes the market more stable

The interest rates on credit facilities in the Palestinian market are generally considered high, especially when compared to the interest rates in the countries of origin of the currencies used in the Palestinian economy.

Monetary Authority data indicate that the weighted interest rates on the currencies used in Palestine at the end of the year 2020 amounted to 2.62%, 6.84% for deposits and lending, respectively, for the Jordanian dinar, and 2.43%, 5.52% for the US dollar, and 2.23%, 6.88% for the Israeli shekel.

Figure (7): Supply and demand for credit facilities



The previous figure states that, the economy will be in a better position when the facilities available to the economy increase. As moving from the supply curve S1 to the curve S2, due to an increase in the supply of facilities, the result will be a decline in the interest rate from I1 to I2. At the same time, as the value of the required facilities from Q1 increases to Q2, where the equilibrium point moves from E1 to E2, creating a better equilibrium point for the entire economy than the previous point, as it allows an increase in investments at lower costs.

○ **The negative effects of the growth of facilities**

Periods of economic growth are generally accompanied by some negative economic and financial effects, which can be viewed as side effects of growth that are inevitable; some of these effects can be summarized as follows:

**1. Price inflation:** The price level is likely to rise, due to the increase in general demand resulting from the growth of facilities in the economy. In the Palestinian case, it is not expected that the general level of prices will be affected by the growth of facilities, with the exception of the real estate market. This belief is because the absence of the national currency does not allow any increase in the monetary mass that causes the price level to rise, while the growth in facilities will result from the growth in bank assets by increasing the financial depth ratios.

As for the real estate market, it is possible that prices will increase in this market, as a result, of not a small part of the increase in credit facilities going to investment in the real estate and construction sector. Here, the increase in the prices of these real estates is the result of both the increase in the available credit facilities, as well as the permanent market expectations that make the price curve continue to rise.

It is possible to avoid an increase in real estate prices by imposing new taxes, or increasing the rates of existing taxes on capital gains. A group of experts (Xinyu Zhao, Michael Sukin and Wei Cheung) presented a research paper supporting this idea, after the three researchers studied the evolution of house prices during the real estate bubble, and compared countries based on the change in capital gains tax rates in each country.

The researchers discovered that countries with higher taxes on capital gains are less likely to bubble and burst, and more precisely, experts discovered that countries that impose low taxes on capital gains, are witnessing an increase in the purchase of real estate assets without the aim of keeping them as their prices rise.

The simplest explanation for this model is that higher prices without higher taxes make people expect that prices will not fall again, they start thinking that the upward trend in prices will continue in the near future and therefore continue to buy.

**2. Increasing Stall Ratio:**

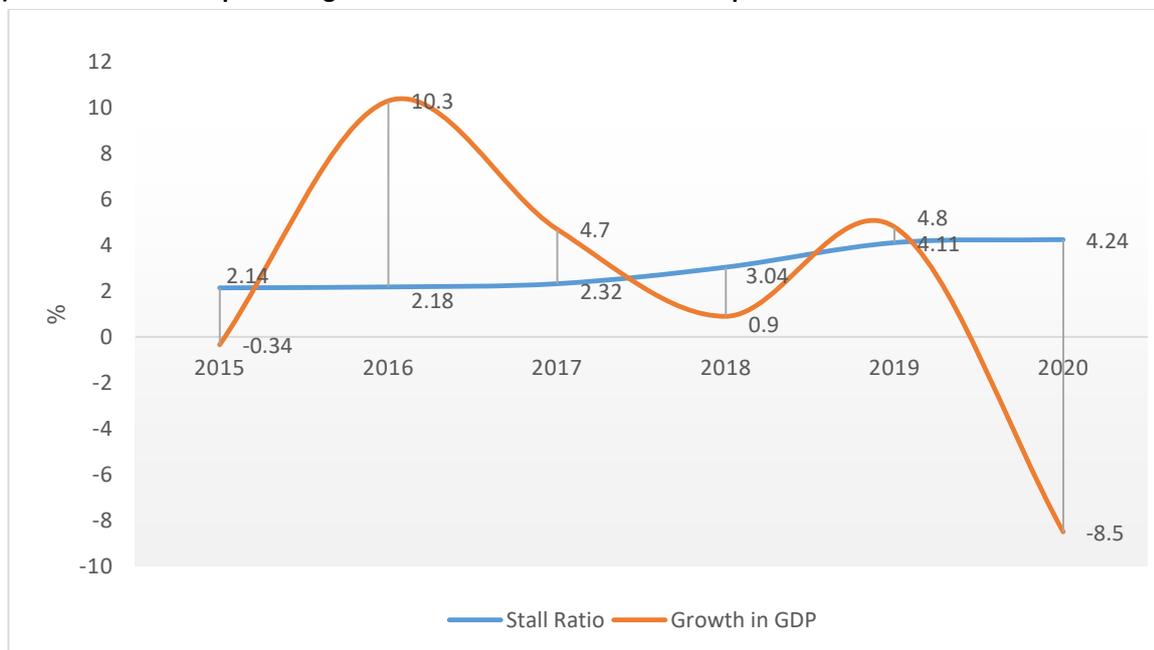
The growth in credit facilities may lead to an increase in default rates, and this is logical in the short term, especially if the increase in credit facilities is accompanied by slow growth in economic activity, as is the case in the Palestinian case. However, this may change in the medium term similar to the dynamic relationship between the credit gap and economic growth, where

## The Impact of Achieving the Objectives of the Overall Safety Policy on Economic Development in Palestine

default rates are expected to rise initially, as a result, of the expansion of credit, and then begin to decline with the increase in growth and economic activity.

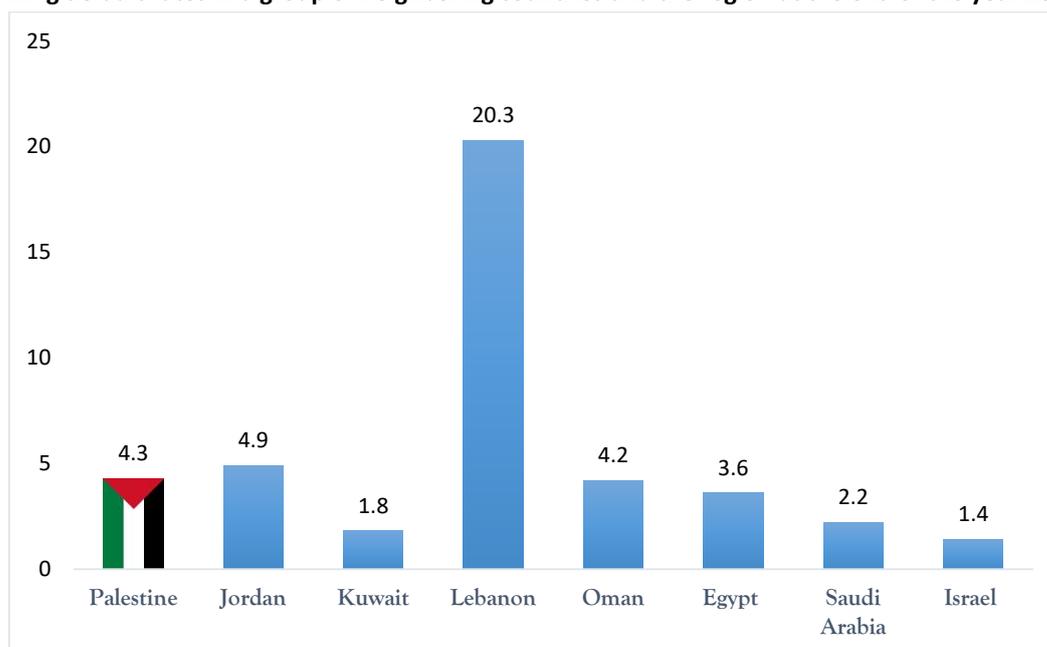
It is worth mentioning, that the default rates in the Palestinian banking sector remained within low ranges over the past years of this sector’s life; even in light of the Palestinian economy being subjected to severe crises such as salary cuts and the complications of the Corona epidemic. The default rates remained within reasonable limits and did not witness large increases.

**Figure (8): Default rates compared to growth rates in nominal GDP for the period 2015-2020**



It is noted from the previous figure that, the rate of default in the Palestinian banking sector has tended to rise during the past few years. Clearly, this rise is accompanied by a decline in growth rates in nominal GDP, especially in the year 2020, when the default rate recorded its highest rate in years at 4.24%, in At the same time, the growth rate in nominal GDP reached its lowest level at -8.5%.

**Figure (9): Banking default rates in a group of neighboring countries and the region at the end of the year 2020<sup>5</sup>**



Source: ceicdata

<sup>5</sup> The default rate for Jordan is specific to the end of the year 2019.

## The Impact of Achieving the Objectives of the Overall Safety Policy on Economic Development in Palestine

Data on default rates in some neighboring countries and the region indicate that the rate of default in the Palestinian banking sector is slightly more than the prevailing rate for all of these countries (except for Lebanon) at about 3.3%, and as mentioned previously, this rate can rise with the increase in credit facilities. However, it is logical that this percentage will decrease when the growth in nominal GDP increases. Although there are risks of an initial rise in the default rate, achieving growth in the domestic product and then a decline in the default rate is a much better scenario than taking precautionary measures that lead to an immediate decline in the default rate by reducing credit facilities.

The reasoning for this is that over time, the growth in GDP will be negatively affected by the decline in credit facilities available in the economy, which in turn will increase the bank default rate again.

### ➤ Results and Recommendations

1. Despite the absence of clear monetary policy tools in the Palestinian economy, as a result, of the absence of a national currency, it is possible to replace it with some macro safety tools that have proven effective in stimulating economic growth without exposing the Palestinian banking sector to additional risks. Nevertheless, it is possible to work on reversing the existing negatives in the Palestinian economy resulting from the loss of monetary policy tools, so that these negatives become positive tools, as economic growth can be increased by adjusting the components of banks' budgets without the need to apply monetary policy tools that may carry some negative effects. On the economy when implemented.
2. Given that credit facilities have become a mainstay and an important driver of the Palestinian economy, there are still a long way in order to increase the size of these facilities. They are still consider below the levels found in other countries, especially in light of an increase in demand for bank facilities, as meeting this demand or Part of it will necessarily reduce the phenomenon of (shadow banks).
3. The need for the precautionary safety tools that target the stability of the financial sector to be of a sustainable nature to have positive effects on economic growth in the medium and long term. In this context, the Estidama Program may be a step in the right direction.
4. Coordination between the Monetary Authority and the Ministry of Finance to set an appropriate tax policy on capital profits. Keeping in regards, the real estate market, as there is almost global consensus that the best way to avoid a real estate bubble is by imposing appropriate additional taxes on real estate to limit the emergence of a bubble in it.

### REFERENCES

- 1) On the interaction between monetary and macroprudential policies European Central Bank, Working Paper Series , February 2021.
- 2) Effects of macroprudential policies on macroeconomic performance, BIS Quarterly Review, September 2017.
- 3) Political Economy and the Paradoxes of Macroprudential Regulation. The University of Sheffield 2017
- 4) Financial Development, Growth, and Crisis, NATIONAL BUREAU OF ECONOMIC RESEARCH, Working Paper 24474, Cambridge, MA 02138 April 2018.
- 5) Macroprudential Policies, Economic Growth, and Banking Crises .International Monetary Fund, March 2020.
- 6) An Overview of Macroprudential Policy Tools, Division of International Finance, Board of Governors of the Federal Reserve System, Washington, DC 20551.
- 7) Asset prices, investment, credit and financial vulnerability. An analysis using quarterly figures
- 8) Magdalena D. Riiser, Macroprudential Department, Norges Bank Financial Stability
- 9) BIS (2010): Guidance for national authorities operating the countercyclical capital buffer



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## Management Support, Competence, Organizational Culture and Professional Ethics on Internal Audit Effectiveness



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**ABSTRACT:** The formulation of the problem in this research is how is the Effect of Management Support, Competence, Organizational Culture and Professional Ethics on the Effectiveness of Internal Audit (Case Study on State-Owned Enterprises (BUMN) in Palembang City). The type of research used is associative research. The data used are primary data. The population in this study is the internal audit in the State-Owned Enterprises (BUMN) in Palembang City as many as 32 respondents. Data collection techniques are using interviews and questionnaires. The data analysis method used in this research is quantitative analysis. The results of this study show that management support, competence, organizational culture and professional ethics significantly influence the effectiveness of internal audit.

**KEYWORDS:** Management Support, Competence, Organizational Culture, Professional Ethics, Internal Audit Effectiveness

### 1. INTRODUCTION

The development of business and government systems now allows for supervision of all activities, for this reason it is necessary to supervise so that everything can run well or in other words that requires an internal audit to meet the needs of company management in tackling the company's problems. Internal audit is an auditor who works in a management company so that he is an employee of the company and is an inseparable part of the company's organizational structure where his role is to provide continuous monitoring and assessment. Internal auditors have an interest in the effectiveness of internal control in a company (Hery, 2019: 4).

The effectiveness of internal audit refers to the ability of the audit function to meet the needs of the audit, or the effectiveness of internal audit is the ability of the auditor to achieve the function of the audit. The internal audit functions include the ability to plan, increase organizational productivity, assess the consistency of results with established goals and objectives, implement internal audit recommendations, evaluate and improve risk management, evaluate internal control systems and make recommendations for improvement (Alzeban & Gwiliam, 2014).

Management support is management's commitment to support internal audit in carrying out audits and top management's awareness regarding the needs of internal auditors (Seif, 2017). Management support is very important for operations and internal audit, because all the determinants of internal audit effectiveness come from top management support, bearing in mind that hiring a proficient internal audit person, developing an internal audit person's career and providing an independent opinion for an internal audit person are the result of decisions made by top management and management support not only on implementing audit recommendations, but also on funding, training, and support for audit implementation for example hiring outside experts (Cohen and Sayag, 2010).

Competence shows skills or knowledge that are characterized by professionalism in a particular field as the most important thing, as superior in that field. (Wibowo, 2017:271). Organizational culture is the shared experiences, histories, beliefs, and norms that shape the characteristics of the organization. This culture helps explain the work climate and business climate in the organization (Sunardi and Anita, 2015: 87).

Ethics is defined as a personal discipline in relation to the environment more than what is simply dictated by law. Ethics is often also called morals and values that are believed to be good and right things. Ethics is a basic trait that is embedded in the heart that a person (organization) must have as a guide to behave in social life (Soemarso, 2018:15). From this definition, professional

## **Management Support, Competence, Organizational Culture and Professional Ethics on Internal Audit Effectiveness**

ethics is an action or rule that must be applied by an auditor and becomes a reference for the auditor in paying attention to steps when bound by an agreement with his client.

Research conducted by Hadi and Bambang (2016), Zulkifli et al (2014), Badara and Saidin (2014), Leonardo Aries, Rita Anugrah and Andreas (2017), Dea and Haryanto (2016) stated that management support has a positive effect on audit effectiveness. while research conducted by Rheza and Darsono (2015) and Irfan and Suriana (2017) stated that management support had no significant effect on the effectiveness of internal audit.

Previous research by Zulkifli et al (2014), Restu and Nastia (2013), Dea and Haryanto (2016), Seif (2017) stated that competence has a positive influence on the effectiveness of internal audit, while research conducted by Leonardo Aries, Rita Anugrah and Andreas (2017) stated that competence has no effect on the effectiveness of internal audit. Ni Wayan Eka et al (2017) stated that organizational culture has a positive influence on effectiveness. And previous research conducted by Amin and Choyroh (2012) that there is a positive influence of professional ethics.

Based on the results of interviews with several SOEs in the city of Palembang, namely that in terms of competency skills related to education, there is still a diversity of auditor levels. And it can be concluded that this can determine the competence of the auditor. The higher the competence of the auditor, the more capable the auditor is in finding errors. The organizational culture structure within the company already reflects what is needed in today's companies. As in the case of employee learning, training has been carried out so that employees can develop their skills and knowledge. As with ethics, the company's auditors have adhered to the principles of independence, integrity and professionalism. Independence which means a condition or position where we are not bound by any party, Integrity which means being honest, consistent and with character and professional which means adhering to moral values. Management support is a support such as audit facilities and infrastructure.

Based on the results of interviews with several other SOEs in Palembang City, namely that the competence and ethics of auditors in this company are good, this is because if the competence is good, it will produce good audit quality as well. The organizational culture in this company is structured but the lack of management support is due to the length of the audit process due to the provision of data that is too many days.

### **Attribution theory**

Attribution theory is a theory developed by Fritz Heider which argues that a person's behavior is determined by a combination of internal forces (internal forces), namely factors that originate from within a person, such as ability or effort and external forces, namely factors -factors that come from outside such as difficulties in work or luck (Arfan, 2019: 129).

### **Management Support**

Management support is how top management defines the information and processing needed, makes system goals and objectives, conducts system reviews and allocates funds (Romney and Steinbard, 2009: 64). Management support is support given to employees to work properly so that they feel recognized by the organization and feel motivated to complete their work properly (Ernie and Donni, 2018: 98).

Based on the definition that has been explained by the authors, the conclusion is that management support is the commitment of top management to support the auditor in carrying out the duties and responsibilities of the audit and top management in relation to the needs of the internal auditor, with the aim of succeeding in the objectives of the internal audit conducted by the auditor.

There are four management roles that must be carried out by managers if the organization they lead can run effectively (Amirullah, 2015: 14), namely:

- a The role of interpersonal relationships
- b Informational role
- c Deciding role (decision maker)

#### **Competence**

Competence is an ability to carry out or perform a job or task based on skills and knowledge and supported by the work attitude required by the job (Wibowo, 2017: 271).

Competence is the possession of knowledge, skills, and abilities required by certain positions, knowledge, skills, and basic values which are reflected in the habits of thinking and acting, the ability to carry out tasks obtained through education or training (Indra, 2014: 280).

From the definition mentioned above, it can be concluded that competence is an individual characteristic that includes knowledge, skills and behavior that results in effective work to achieve organizational goals.

## **Management Support, Competence, Organizational Culture and Professional Ethics on Internal Audit Effectiveness**

### **Organizational culture**

Organizational culture is a system of shared meaning held by members of an organization that distinguishes the organization from other organizations. This meaningful system is a set of key characteristics that are upheld by the organization (Danang and Burnahudin, 2015: 148). Organizational culture is a habit that has lasted a long time and is used and applied in the life of work activities of employees and company managers (Irham, 2013: 114).

Based on the explanation above, it can be concluded that organizational culture is defined as a long-standing habit that has been developed and shared within the organization that determines how the organization can interact with the external environment. Indicators of organizational culture (Sari, 2013: 18), namely:

- a. Leader behavior
- b. Prioritizing the company's mission
- c. Learning process
- d. Motivation

### **Professional ethics**

Ethics is defined as a personal discipline in relation to the environment more than what is simply dictated by law. Ethics is often also called morals/morals, character which is the nature and area of moral, mental, soul, conscience which is the ideal guideline for behavior, which should be possessed by humans as social beings (Ihyanul, 2012: 92).

Ethics is often also called morals and values that are believed to be good and right things. Ethics is a basic trait that is embedded in the heart that a person (organization) must have as a guide to behave in social life (Soemarso, 2018: 15).

Some of the definitions above can be concluded that professional ethics are actions or rules that must be applied by an auditor and become a reference for the auditor in paying attention to steps when bound by an agreement with his client.

The principles of professional ethics put forward by the Indonesian Institute of Accountants (Mulyadi, 2014: 53-60), are:

- a. Professional responsibility
- b. Integrity
- c. Objectivity

### **Internal Audit Effectiveness**

Effectiveness is the ability to carry out tasks, functions (operations, program activities or missions) than an organization or the like in which there is no pressure and tension between its implementation (Betri, 2019: 35).

Internal auditors are auditors who work in companies whose main task is to determine whether the policies and procedures set by top management have been complied with, determine the efficiency and effectiveness of organizational activity procedures, and determine the reliability of information produced by various parts of the organization (Agoes & Hoesada, 2012: 56) .

Based on the definition of internal auditors and effectiveness, it has been explained that the effectiveness of internal auditors is the auditor's ability to achieve the function of internal audit. Internal audit has several indicators, namely:

- a. Guided by applicable standards
- b. Increase contribution to risk management
- c. Destination identification

### **Hypothesis**

Based on the description of the framework, the researcher proposes a hypothesis that will be used to draw conclusions, as follows:

H1 : There is a joint influence of Management Support, Competence, Organizational Culture and Professional Ethics on the Effectiveness of Internal Audit

H2.a :There is a Positive Effect of Management Support on the Effectiveness of Internal Audit.

H2.b :There is a Positive Effect of Competence on the Effectiveness of Internal Audit

H2.c :There is a Positive Effect of Organizational Culture on the Effectiveness of Internal Audit.

H2.d :There is a Positive Effect of Professional Ethics on the Effectiveness of Internal Audit.

## **2. METHODOLOGY**

The type of research used in this study is associative research, the data used in this study is primary data. Primary data is in the form of data obtained from respondents' answers through questionnaires. The location of this research was conducted at the State-Owned Enterprises in Palembang City. The dependent variable used is the effectiveness of internal audit (Y), while the independent variables are Management Support (X1), Competence (X2), Organizational Culture (X3) and Professional Ethics (X4). The population to be studied is the Internal Audit section who works in 15 State-Owned Enterprises in Palembang City. The sample

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used in this study were 3 (three) State-Owned Enterprises (BUMN) in Palembang City. The data collection methods used in this study were interviews and questionnaires.

The data analysis method used in this research is quantitative data analysis. Quantitative analysis was carried out using statistical testing of the results of the questionnaire. In this study, the scale used is the Likert scale used to measure attitudes, opinions, and perceptions of a person or group of people about social phenomena. The analytical technique used to determine the effect of management support, competence, organizational culture and professional ethics on the effectiveness of internal audit is multiple linear regression analysis, either partially or jointly. The analytical technique in this research will be assisted by the statistical program for special science (SPSS). Before carrying out the analysis, according to the requirements of the OLS (Ordinal Least Square) method, the following tests must first be carried out:

### Validity test

Validity test is used to measure the validity or validity of a questionnaire, a questionnaire is said to be valid or valid if the questions on the questionnaire are able to reveal something that will be measured by the questionnaire. The significant test was carried out by comparing the calculated  $r$  value (calculated  $R$  value (corrected item-Total correction value at Cronbach alpha output) with  $r$  table (V.Wiratna, 2018: 178).

$r$  count  $>$   $r$  table then the item or question is valid

$r$  count  $<$   $r$  table then the item or question is not valid

### Reliability Test

Reliability tests were carried out on question items that were declared valid. This test is used to measure a questionnaire which is a variable. A questionnaire is said to be reliable or reliable if a person's answer to a statement is consistent and stable from time to time (V.Wiratna, 2018: 178). Criteria if:

*Cronbach Alpha*  $>$  0.60 then reliable

*Cronbach Alpha*  $<$  0.060 then not reliable

### Classic assumption test

The classical assumption test consists of, namely: (V.Wiratna, 2018: 179-182)

#### 1. Normality test

The normality test aims to test whether in the regression model, the confounding or residual variables have a normal distribution. This normality test has 2 ways to detect whether the residuals are normally distributed or not, namely by using the Kolmogorof statistical test (V.Wiratna, 2018: 179).

#### 2 Multicollinearity Test

Multicollinearity test is needed to determine whether there are independent variables that have similarities between independent variables in a model, the similarity between independent variables will result in a very strong correlation. This test is also to avoid habits in the decision-making process regarding the effect of the partial test of each independent variable on the dependent variable. If the resulting VIF is between 1-10, there is no multicollinearity.

3 Heteroscedasticity tests the occurrence of differences in residual variance from one observation period to another observation period. How to predict the presence or absence of heteroscedasticity if the data points spread above and below or around the number 0, the data points do not collect only above or below, the spread of data points should not form a wavy pattern that widens then narrows and widens again, the spread unpatterned data points.

### Hypothesis testing

#### 1 Joint Hypothesis Testing (F Test)

Joint hypothesis testing is a multiple regression coefficient hypothesis testing with  $B_1$  and  $B_2$  simultaneously influencing  $Y$ .

#### 2 Partial/Individual Hypothesis Testing

(t test)

Individual hypothesis testing is a multiple regression coefficient hypothesis testing with only one  $b$  ( $b_1$  or  $b_2$  or  $b_3$  or  $b_4$ ) affecting  $Y$ .

#### 3 Multiple Linear Regression Analysis

Multiple regression has classical assumptions that must be met, namely the residuals are normally distributed, there is no multicollinearity, there is no heteroscedasticity, and there is no autocorrelation (Wiratna, 2018: 180).

3. RESULT AND DISCUSSION

Validity test

The validity test was carried out on the statement items of each variable in the questionnaire. The validity test is conducted to determine the extent to which the items that make up the concept that have been compiled can represent variables if the rcount of the statement is greater than the value of r table. It is concluded that the variables in the research are valid and can be used as research data.

Table 1. Validity Test Results

Variable	Information
Management Support	Valid
Competence	Valid
Organizational culture	Valid
Professional ethics	Valid
Internal Audit Effectiveness	Valid

Source: Processed data, 2020

Reliability Test

This reliability test uses a test with Cronbach's Alpha coefficients with the help of SPSS22 software. In general, an instrument is said to be reliable if the Cronbach's Alpha value is > 0.60. Cronbach's Alpha value is obtained with all variables showing greater than 0.60. Thus the respondents' answers from these variables are reliable, so that the questionnaires from these variables can be used for research.

Classic assumption test

1) Normality Test

The normality test is used to measure whether the data held is normally distributed so that it can be used in statistics. The normality test aims to test whether in the regression model, the independent and dependent variables have a normal distribution or not. The results of the normality test can be seen in the figure that the points spread around the line and follow the diagonal line, so the residual value is normal.

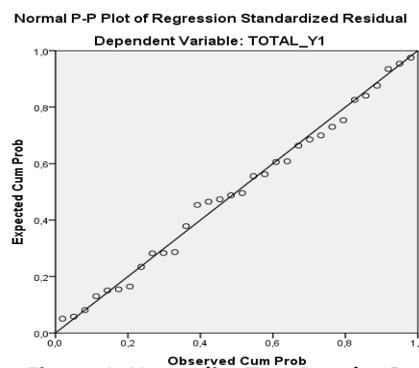


Figure 1. Normality Test Results Graphic Method

Source: Processed data, 2020

2) Multicollinearity Test

The multicollinearity test means that there is a perfect or definite linear relationship between some or all variables that are independent of the existing model. As a result, this multicollinearity regression coefficient is not certain and the standard error is infinite. This multicollinearity test aims to test whether the regression model found a correlation between the independent variables. The method for testing the existence of this multicollinearity can be seen from the tolerance value or variance inflation factor (VIF). The limit of the tolerance value or variance inflation factor > 0.1 or the VIF value less than 10 means that there is no multicollinearity. The multicollinearity test was assisted by the SPSS version 22 program with the following results:

Table 2. of Multicollinearity Test Results

Coefficientsa

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	23,303	9,148		2,547	0,017		
TOTAL_X1	,581	,227	,407	2,562	0,016	,841	1,189
TOTAL_X2	,298	,185	,269	1,612	,119	,761	1.313
TOTAL_X3	-,380	,197	-,299	-1,933	,064	,890	1.123
TOTAL_X4	,322	,241	,216	1.338	,192	,819	1,221

a. Dependent Variable: TOTAL\_Y1

Source: Processed data, 2020

Based on the table above, it can be concluded that all independent variables in this study have no multicollinearity.

3) Heteroscedasticity Test

The results of processing the heteroscedasticity test data using the SPSS version 22 program show that there is no clear pattern such as points spread above and below the number 0 on the Y axis, so there is no heteroscedasticity.

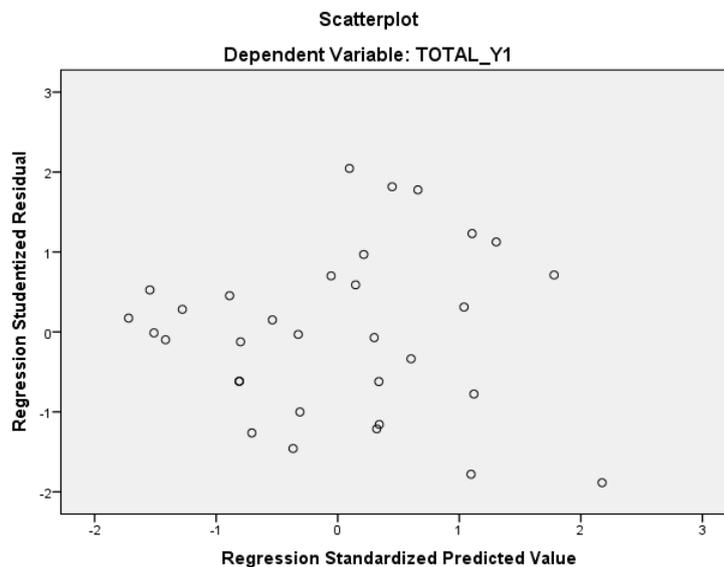


Figure 2. Heteroscedasticity test

Source: Processed data, 2020

Hypothesis testing

1) F Test (Simultaneous)

The F test was conducted to find out how the variables of Management Support, Competence, Organizational Culture and Professional Ethics influence the effectiveness of Internal Audit together or simultaneously.

Table 3. Simultaneous Test Results Table

ANOVA<sup>a</sup>

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	91,786	4	22,946	5,008	,004b
Residual	123.714	27	4,582		
Total	215,500	31			

a. Dependent Variable: TOTAL\_Y1

b. Predictors: (Constant), TOTAL\_X4, TOTAL\_X1, TOTAL\_X3, TOTAL\_X2

Source: Processed data, 2020

Based on the table above, it shows a significant value of F that Fcount is 5,008 > Ftable, which is 2,728 with a significance level of 0.004 less than 0.05. This shows that Management Support (X1), Competence (X2), Organizational Culture (X3) and Professional Ethics (X4) have a significant effect on Internal Audit Effectiveness (Y).

2) t test (Partial)

The t-test was conducted to determine whether there was an effect of the independent variables, namely Management Support, Competence, Organizational Culture and Professional Ethics on the Effectiveness of Internal Audit individually or partially.

Table 4. Partial Test Results Table

Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	23,303	9,148		2,547	0.017		
TOTAL_X1	,581	,227	,407	2,562	0.016	,841	1,189
TOTAL_X2	,298	,185	,269	1,612	,119	,761	1.313
TOTAL_X3	-,380	,197	-,299	-1,933	,064	,890	1.123
TOTAL_X4	,322	,241	,216	1.338	,192	,819	1,221

a. Dependent Variable: TOTAL\_Y1

(a) Partial Effect of Management Support (X1) on Internal Audit Effectiveness (Y).

The results of the hypothesis test show that it is known that the tcount value for the variable Management Support (X1) is 2,562 while the ttable with a real rate (α) of 5% (0.05) and df = nk = (32-5) = 27 is 2.052, so it can be concluded that Ha2a is accepted and H02a is rejected because tcount > t table with numbers 2,562 > 2,052. The results of individual hypothesis testing for the Management Support variable (X1) indicate that this variable significantly affects the internal audit effectiveness variable (Y). This is illustrated by the rejection of H02a and the acceptance of Ha2a and the significance value of X1of 0.016 because the value of t

## Management Support, Competence, Organizational Culture and Professional Ethics on Internal Audit Effectiveness

sig <0.05 = 0.016 <0.05, meaning that it has a positive and significant effect. The conclusion is that Management Support significantly affects the effectiveness of internal audit.

### (b) Partial Effect of Competence (X2) on Internal Audit Effectiveness (Y).

The results of the hypothesis test show that the tcount value for the Competency variable (X1) is 1.612 while the ttable with a real rate ( $\alpha$ ) of 5% (0.05) and  $df = nk = (32-5) = 27$  is 2.052, so it can be concluded that Ha2b is rejected and H02b is accepted because  $tcount > t$  table with numbers  $1.612 < 2.052$ . The results of individual hypothesis testing for the Competency variable (X2) indicate that this variable does not affect the Effectiveness of Internal Audit (Y). This is illustrated by the acceptance of H02b and the rejection of Ha2b and the significance value of X2 of 0.119 because the value of  $t$  sig  $> 0.05 = 0.119 > 0.05$ . So the conclusion is that Competence does not affect and is not significant to the Effectiveness of Internal Audit.

### (c) Partial Influence of Organizational Culture (X3) on Internal Audit Effectiveness (Y).

The results of the hypothesis test show that the tcount value for the variable implementation of Organizational Culture (X3) is -1,933 while the ttable with a real rate ( $\alpha$ ) of 5% (0.05) and  $df = nk = (32-5) = 27$  is 2.052, so it can be concluded that Ha2c is rejected and H02c is accepted because  $tcount < t$  table with numbers  $-1.933 < 2.052$ . The results of the individual hypothesis test for the Organizational Culture variable (X3) indicate that this variable does not affect the internal audit effectiveness variable (Y). This is illustrated by the acceptance of H02c and the rejection of Ha2c and the significance value of X3 of 0.064 because the value of  $t$  sig  $> 0.05 = 0.064 > 0.05$ , it means that it has no positive and significant effect. The conclusion is that Organizational Culture does not affect and does not significantly affect the effectiveness of internal audit.

### (d) Partial Effect of Professional Ethics (X4) on Internal Audit Effectiveness (Y).

The results of the hypothesis test show that the tcount value for the Professional Ethics variable (X4) is 1.338 while the ttable with a real rate ( $\alpha$ ) of 5% (0.05) and  $df = nk = (32-5) = 27$  is 2.052, so it can be concluded that it is concluded that Ha2d is rejected and H02d is accepted because  $tcount < t$  table with numbers  $1.338 < 2.052$ . The results of the individual hypothesis test for the Professional Ethics variable (X4) indicate that this variable does not affect the Internal Audit Effectiveness (Y). This is illustrated by the acceptance of H02d and rejection of Ha2d and the significance value of X4 of 0.192 because the value of  $t$  sig  $> 0.05 = 0.192 > 0.05$ . So the conclusion is that Professional Ethics does not affect and is not significant to the Effectiveness of Internal Audit.

## 3) Regression Test Results

This study aims to see the effect of Management Support, Competence, Organizational Culture and Professional Ethics on the Effectiveness of Internal Audit by using SPSS version 22.

**Table 5. Regression Test Results**

Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	23,303	9,148		2,547	0,017
TOTAL_X1	,581	,227	,407	2,562	0,016
TOTAL_X2	,298	,185	,269	1,612	,119
TOTAL_X3	-,380	,197	-,299	-1,933	,064
TOTAL_X4	,322	,241	,216	1,338	,192

a. Dependent Variable: TOTAL\_Y1

The results of multiple linear regression examined on the variables of Management Support, Competence, Organizational Culture and Professional Ethics on the Effectiveness of Internal Audit. The regression equation used in this study is as follows:

Equation I:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4$$

$$Y = 23.303 + 0.581X_1 + 0.298X_2 + (-0.380)X_3 + 0.322X_4$$

## **Management Support, Competence, Organizational Culture and Professional Ethics on Internal Audit Effectiveness**

The constant value of 23.303 means that if all independent variables are considered constant, namely Management Support (X1), Competence (X2), Organizational Culture (X3) and Professional Ethics (X4), the value of the dependent variable, namely Internal Audit Effectiveness (Y) is 23,303. The results of the study showed that the regression coefficient of Management Support (X1) was 0.581 with a significant value of 0.016. The significant value of 0.016 is smaller than 0.05 so that Management Support (X1) has an influence on Internal Audit Effectiveness (Y). The conclusion of the first hypothesis, namely the influence of Management Support on Internal Audit Effectiveness, is accepted.

The result of the research is the competency regression coefficient value (X2) is 0.298 with a significant value of 0.119. The significant value of 0.119 is greater than 0.05 so that Competence (X2) has no effect on Internal Audit Effectiveness (Y). The conclusion of the second hypothesis, namely the influence of Competence on Internal Audit Effectiveness, is rejected. The results of the research that the regression coefficient value of Organizational Culture (X3) is -0.380 with a significant value of 0.064. The significant value of 0.064 is greater than 0.05 so that Organizational Culture (X3) has no influence on the Effectiveness of Internal Audit (Y). The conclusion of the third hypothesis, namely the influence of Organizational Culture on Internal Audit Effectiveness, is rejected.

The results of the study showed that the regression coefficient of Professional Ethics (X4) was 0.322 with a significant value of 0.192. The significant value of 0.192 is greater than 0.05 so that Professional Ethics (X4) has no effect on Internal Audit Effectiveness (Y). The conclusion of the fourth hypothesis, namely the influence of Professional Ethics on Internal Audit Effectiveness, is rejected.

## **DISCUSSION**

### **The Effect of Management Support, Competence, Organizational Culture and Professional Ethics on the Effectiveness of Internal Audit Together.**

Based on the results of the analysis using SPSS 22 and hypothesis testing, it shows that Ha1 is accepted and H01 is rejected, which means that Management Support, Competence, Organizational Culture and Professional Ethics have a significant effect on the Effectiveness of Internal Audit. These results indicate that the better Management Support, Competence, Organizational Culture and Professional Ethics, the higher the level of Internal Audit Effectiveness.

Management support, competence, organizational culture and professional ethics are one of the important indicators an auditor has in supporting the effectiveness of internal audit. The results of this study indicate that the effectiveness of internal audit within the State-Owned Enterprises (BUMN) in Palembang City really needs management support, competence, organizational culture and professional ethics in the results issued by the auditors.

The results of this study are in line with research conducted by Zulkifli et al (2014) which states that management support and competence have a positive and significant effect on the effectiveness of internal audit. And shows that the greater the effectiveness will depend on audit competence and management support. And this research is also in line with Hadi and Bambang (2016), Badara and Saidin (2014), Leonardo Aries, Rita Anugrah and Andreas (2017), Dea and Haryanto (2016), Zulkifli et al (2014), Restu and Nastia (2013), Seif (2017) Christony and Novi (2017), Ni Wayan, Edy Sujana and Made Arie Wahyuni (2017), Amin and Choyroh (2012) state that management support, competence, organizational culture and professional ethics have a significant effect on the effectiveness of internal audit.

### **The Effect of Management Support on the Effectiveness of Internal Audit**

Based on the results of the analysis using SPSS 22 and hypothesis testing, it shows that Ho2a is rejected and Ha2a is accepted, which means that management support significantly affects the effectiveness of internal audit, this shows that the better management support, the higher the level of Internal Audit Effectiveness. In realizing the creation of the effectiveness of internal audit, it is impossible for only one party to strive to achieve this, but there must be strong support from the internal and external environment (Rahaditya and Darsono, 2015). Management support is top management's commitment to support auditors in carrying out their duties and responsibilities, as well as by providing facilities and infrastructure.

This is in line with research conducted by Hadi and Bambang (2016), Zulkifli et al (2014), Badara and Saidin (2014), Leonardo Aries, Rita Anugrah and Andreas (2017), Dea and Haryanto (2016) stated that management support has an effect on on the effectiveness of internal audit. However, this study is not in line with research conducted by Rheza and Darsono (2015) and Irfan and Suriana (2017) which states that management support does not have a significant effect on the effectiveness of internal audit.

### **The Effect of Competence on the Effectiveness of Internal Audit**

Based on the results of the analysis using SPSS 22 and the hypothesis testing conducted, it shows that Ho2b is accepted and Ha2b is rejected, which means that competence has no and no significant effect on the effectiveness of internal audit. Competence as well as education is basically the main technical standard in conducting audits. However, the competencies related to education

## **Management Support, Competence, Organizational Culture and Professional Ethics on Internal Audit Effectiveness**

here have a variety of levels of auditors, this can determine the competence of the auditors, the higher the competence of the auditors, the more capable the auditors are in finding errors.

This result is in line with research by Leonardo Aries, Rita Anugrah and Andreas (2017) which states that competence has no effect on the effectiveness of internal audit. However, this study is not in line with research by Zulkifli et al (2014), Restu and Nastia (2013) which states that competence has a positive effect on the effectiveness of internal audit.

### **The Influence of Organizational Culture on the Effectiveness of Internal Audit**

Based on the results of the analysis using SPSS 22 and the hypothesis testing conducted, it shows that Ho2c is accepted and Ha2c is rejected, which means that organizational culture has no and no significant effect on the effectiveness of internal audit. The results of this study are in line with Susilawati (2018) which states that organizational culture does not affect the effectiveness of internal audit. And this result is not in line with previous research, Christony and Novi (2017) stated that organizational culture has a positive effect and also Ni Wayan Eka et al. (2017) stated that organizational culture has a positive influence on effectiveness.

### **The Effect of Professional Ethics on the Effectiveness of Internal Audit**

Based on the results of the analysis using SPSS 22 and hypothesis testing, it shows that Ho2a is accepted and Ha2a is rejected, which means that professional ethics has no effect and is not significant on the effectiveness of internal audit. Ethics is defined as a personal discipline in relation to the environment, professional ethics includes the attitude standards of members of the profession. The main role of an auditor is to provide a review in terms of an objective and independent party, but in this case it is seen that there is a lack of internal audit role that has a bad influence. However, this study is not in line with the research of Amin and Choyroh (2012) that there is a positive influence of professional ethics.

## **4. CONCLUSIONS**

This study examines Management Support, Competence, Organizational Bdaya, and Professional Ethics have an influence on the Effectiveness of Internal Audit in State-Owned Enterprises in Palembang City. From the discussion and description in Chapter IV, it can be concluded that Management Support, Competence, Organizational Culture and Professional Ethics have a significant effect on the effectiveness of internal audit. Management support has a significant effect on the effectiveness of internal audit, Competence, Organizational Culture and Professional Ethics have no significant effect on the effectiveness of Internal Audit. And the conclusion from the aspect of the effectiveness of internal audit that management support there is a support such as facilities and infrastructure, competencies related to education, there are still various levels of auditors,

## **REFERENCES**

- 1) Alzeban dan William. 2014. Factors Affecting the Internal Audit Effectiveness. Vol 23, No 2
- 2) Amirullah. 2015. Pengantar Manajemen. Jakarta: Mitra Wacana Media.
- 3) Amir. 2012. Manajemen Strategik Konsep dan Aplikasi. Jakarta: Rajawali.
- 4) Anwar Sanusi. 2011. Metode Penelitian Bisnis. Jakarta: Salemba Empat.
- 5) Arens. 2017. Audit & Jasa Assurance: Pendekatan Terintegritas. Edisi 15. Jakarta: Erlangga
- 6) Arfan Ikhsan. 2019. Akuntansi Keperilakuan. Jakarta: Salemba Empat.
- 7) Badara dan Saidin. 2014. Empirical Evidence of Antecedent of Internal Audit Effectiveness From Nigerian Perspective. Middle East Journal of Scientific Research. Vol 19. Pp 460-469.
- 8) Betri. 2019. Pemeriksaan Manajemen. Palembang: NoerFikri.
- 9) Christony dan Novi. (2017). Pengaruh budaya organisasi dan gaya kepemimpinan terhadap kinerja audit internal. Vol 06, No. 01
- 10) Cohen dan Sayag. 2010. The Effectiveness of Internal Auditing: An Empirical Examination of Its Determinan InIsraeli Organisations Review 20.3, 296-307
- 11) Danang dan Burhanudin. 2015. Teori Perilaku Keorganisasian. Jakarta: CAPS.
- 12) Dea dan Haryanto (2016). Determinan Efektivitas Auditor Internal pada Inspektorat Provinsi Daerah Istimewa Yogyakarta. Vol 13, No. 2
- 13) Edison, et.al. 2016. Manajemen Sumber Daya Sumber. Bandung: Alfabeta.
- 14) Erni dan Donni. 2018. Kepemimpinan dan Perilaku Organisasi. Bandung: PT Refika Aditama.
- 15) Gusti. 2011. Audit Kinerja pada Sektor Publik. Jakarta: Salemba Empat.
- 16) Hadi dan Bambang (2016). Pengaruh sistem pengendalian intern, dukungan manajemen, dan audit profesionalism terhadap keefektifan audit internal. Vol XX, No 01
- 17) Hery. 2019. Auditing Dasar-Dasar Pemeriksaan Akuntansi. Jakarta: PT. Grasindo.
- 18) Ihyarul. 2012. Audit Sektor Publik. Jakarta: Bumi Aksara.

- 19) Indra Bastian. 2014. Audit Sektor Publik. Jakarta: Salemba Empat
- 20) Irfan dan Suriana (2017). Determinan Efektivitas Auditor Internal Pemerintah (Studi pada Kantor Inspektorat Provinsi Maluku Utara). Vol 14, No. 1
- 21) Irham Fahmi. 2013. Etika Bisnis. Bandung: Alfabeta
- 22) Leoardo Aries, Rita Anugrah dan Andreas. (2017). Pengaruh kompetensi, independensi dan dukungan manajemen terhadap efektivitas audit internal. Vol 5, No 2
- 23) Mulyadi. 2014. Auditing. Jakarta: Salemba Empat.
- 24) Ni Wayan, Edy Sujana dan Made Arie Wahyuni. (2017). Pengaruh budaya organisasi, gaya kepemimpinan dan pengalaman kerja terhadap efektivitas sistem pengendalian intern. Vol 7, No 1
- 25) Priyastama, Romie. 2017. Buku Sakti Kuasai SPSS. Bantul: PT. Anak Hebat Indonesia.
- 26) Restu dan Nastia. (2013). Pengaruh kompetensi, independensi dan profesionalisme terhadap kualitas audit. Vol 21, No 3
- 27) Rheza dan Darsono. (2015). Pengaruh pengalaman auditor, manajemen risiko, pendidikan dan dukungan manajemen terhadap efektivitas audit internal. Vol 4, No.4
- 28) Romie. 2017. Spss Pengolahan Data & Analisis Data. Yogyakarta: Start Up.
- 29) Romney, Marshal B., dan Steinbart, Paul John. 2009. Accounting Information Systems. USA: Cengage Learning.
- 30) Sawyer. 2005. Internal Auditing. Jakarta: Salemba Empat
- 31) Seif Obeid (2017). Internal Auditing Effectiveness Success Model: A Study on Jordanian Industrial Firms.
- 32) Soemarso. 2018. Etika dalam Bisnis & Profesi Akuntan dan Tata Kelola Perusahaan. Jakarta: Salemba Empat.
- 33) Stephen et.al. 2015. Akuntansi Manajemen Teori dan Aplikasi. Yogyakarta: Pustaka.
- 34) Sukrisno Agoes. 2013. Auditing Petunjuk Praktis Pemeriksaan Akuntan oleh Akuntan Publik Edisi 4 Buku 1. Jakarta: Salemba Empat.
- 35) Sunardi dan Anita. 2015. Pengantar Bisnis: Konsep, Strategi dan Kasus. Yogyakarta: CAPS.
- 36) Sunyoto, Danang. 2016. Metodologi Penelitian Akuntansi. Bandung: PT. Refika Aditama.
- 37) Sutrisno Edy. 2011. Manajemen Sumber Daya Manusia. Jakarta: Kencana.
- 38) Uma. 2017. Metodologi Penelitian Bisnis. Jakarta: Salemba Empat
- 39) Wibowo. 2017. Manajemen Kinerja Edisi Lima. Jakarta: PT RajaGrafindo Persada.
- 40) William, Steven, dan Douglas. 2014. Jasa Audit dan Assurance: Pendekatan Sistematis. Jakarta: Salemba Empat.
- 41) Wiratna. 2018. Metode Penelitian: Lengkap, Praktis, dan Mudah Dipahami. Yogyakarta: Pustaka Baru Press.
- 42) Zavara, Hiro dan Muslih. (2016). Pengaruh etika auditor dan fee audit terhadap kualitas audit. Vol 3, No.3
- 43) Zulkifli Baharudin, Alagan Shokiyah, and Mohd Serjana Ibrahim (2014). Factor that Contribute to the Effectiveness of Internal Audit in Public Sector. V70. 24



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## Consistency of Interest and Perseverance of Effort in Pharmacy Students During Online Learning



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**ABSTRACT:** Online learning has a serious impact on the world of education. Students' learning motivation decreases is one of the effects. This study aims to examine how the conditions of the two dimensions of Grit, namely Consistency of Interest and Perseverance of Effort in students during online learning. This research is quantitative descriptive research. A total of 754 students consisting of 176 males and 578 females, participated in this study. The GRIT-S scale is given online using the help of a google form. The results of this study indicate that the average dimension of Perseverance of Effort is higher than Consistency of Interest. In addition to the grit level categorization on the Consistency of Interest Dimension, moderate-level participants dominate this study. Meanwhile, the Low level on the Consistency of Interest dimension is higher than the participants at the high level. This shows that participants tend to have lower Consistency of Interest during a pandemic. On the Perseverance of Effort dimension, moderate level participants also dominate this study. However, on the Perseverance of Effort dimension, the High level of the Perseverance of Effort dimension is more than that of the Low level of participants. Theoretical and practical implications are discussed.

**KEYWORDS:** Grit, Consistency of Interest, Perseverance of Effort, online learning, pandemic COVID-19

### I. INTRODUCTION

The pandemic will still apply in a country as long as COVID-19 cannot be handled. Indonesia is one of the countries that, until now (April 2022), still feel how the pandemic is still going on. Education is still not fully for offline learning. While many feel that the impact of the pandemic is felt in various fields. The education sector is one of the most affected by the COVID-19 pandemic. Examples of research results on the impact of the COVID-19 pandemic on school activities are limited time, facilities, different student conditions, and decreased student motivation (Muthmainnah et al., 2022). Nevertheless, online learning is one of the best ways to stop the spread of COVID-19,

It is undeniable that online learning cannot be effective because many research reports say that students' learning motivation decreases when participating in online learning (Agustina et al., 2021; Ahmadi & Syahrani, 2022; Izzatunnisa et al., 2021; Pahrji, 2021). ; Said, 2021; Tafdhila et al., 2021; Wahyudi & Yulianti, 2021; Zurriyati & Mudjiran, 2021). However, some students continue to study despite challenging circumstances, such as the COVID-19 pandemic. This depends on the personality possessed by the student. Grit is a personality trait that can sustain the condition. Grit is defined as persistence and passion when working to achieve long-term goals (Nishikawa et al., 2022).

Initially, Grit was concerned with increasing the opportunities for disadvantaged students (Ris, 2015). But the concept of Grit is also useful and can be applied by middle- and upper-class adults to correct their own children's mistakes and perhaps overcome them. Grit serves for the development of character development (Ris, 2015). To have high Grit requires hard work against challenges, maintaining interest for years despite failure and ongoing difficulties (Duckworth et al., 2007).

Grit has two main dimensions: Consistency of Interest and Perseverance of Effort (Duckworth et al., 2007). Consistency of Interest means maintaining interest over time even when one faces setbacks and failures. In contrast, Perseverance of Effort refers to the tendency to work hard and maintain efforts even when one faces challenges (Duckworth et al., 2007). These two dimensions together form Grit. The results of previous studies said that Grit had a low correlation with IQ but could be a strong predictor of achievement, especially for GPA in college (Ris, 2015).

Based on the above background, this study explores how Consistency of Interest and Perseverance of Effort occur in students during the COVID-19 pandemic in online learning. Students with high Perseverance of Effort and Consistency of Interest will look

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different from other students because it makes obstacles in online learning a challenge. This is important to find out how the efforts made by students to keep trying to follow learning well in challenging times.

### II. METHOD

This study uses a descriptive quantitative approach. A descriptive quantitative method is a basic quantitative method whose description is numerical or numerical. The advantage of this method is that it can describe conditions in the general population. Participants in this study were 754 students consisting of 176 males and 578 females. Online students fill out questionnaires that have been compiled using google forms. Based on the demographic data shown in table 1. It can be seen that the age of the participants is from 17 to 24 years. Participants came from 9 majors, namely Islamic Religion (3.4%), Economic and Business (39.7%), Pharmacy (2.5%), Law (0.9%), Health Sciences (4%), Teacher training and education science (15%), Psychology (27.5%), Literature (5.7%), and Engineering and Science (1.3%). Participants were dominated by semester 4 (57.4%) and semester 2 (34%). The average participant had a GPA of 2.76 to 4.00. In addition, participants believe that the major is in accordance with passion as much as 89.4% while it is not suitable for much as 10.6%. Finally, demographics also asked about basic high school; information was obtained that 24.3% came from schools based on Islam and 57.3% from public schools.

**Table 1. Participant**

	Levels	Counts	% of Total	Cumulative %
AGE	17	2	0.3%	0.3%
	18	65	8.6%	8.9 %
	19	229	30.4%	39.3%
	20	278	36.9%	76.1 %
	21	143	19.0%	95.1 %
	22	24	3.2%	98.3%
	23	9	1.2%	99.5%
	24	4	0.5 %	100.0%
SEX	Male	176	23.3%	23.3%
	female	578	76.7 %	100.0%
Major	Islamic Religion	26	3.4%	3.4%
	Economics and Business	299	39.7%	43.1%
	Pharmacy	19	2.5%	45.6%
	Law	7	0.9%	46.6%
	Health sciences	30	4.0 %	50.5%
	Teacher training and education science	113	15.0%	65.5%
	Psychology	207	27.5%	93.0%
	Literature	43	5.7%	98.7%
	Engineering and science	10	1.3%	100.0%
Semester	2	256	34.0%	34.0%
	4	433	57.4%	91.4%
	6	39	5.2%	96.6%
	8	26	3.4%	100.0%
GPA	2.00 - 2.75	11	1.5%	1.5%
	2.76 - 3.50	330	43.8%	45.2%
	3.51 - 4.00	412	54.6%	99.9%
	<2.00	1	0.1 %	100.0%
Major suitable with passion?	1	674	89.4%	89.4%
	2	80	10.6%	100.0%
High school basic	Islamic	183	24.3%	24.3%
	Non-Islamic	571	75.7%	100.0%

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The data collection tool uses The Short Grit Scale (Duckworth & Quinn, 2009), adapted and translated into Indonesian. Grit-S measures two grit dimensions: Perseverance of Effort (4 items, for example, "I am diligent") and Consistency of Interest (4 items, for example, "I often set a goal but later choose to pursue a different one." The Consistency of Interest scale has a reliability of 0.72, and the Perseverance of Effort scale has a reliability of 0.79. Scoring data using a Likert scale from 1 (true) to 6 (not true) assessed Perseverance of Effort, reverse-scored for four Consistency of Interest items.

Data analysis uses quantitative descriptive analysis, which includes categorizing Grit levels based on the dimensions of Perseverance of Effort, and Consistency of Interest. The results of level categorization will be grouped based on demographic data such as age, sex, major, GPA, semester, Major passion, and high School basic. Data analysis was performed using the JAMOVI program.

### III. RESULT AND DISCUSSION

Before the main analysis, the descriptive minimum, maximum, mean, and standard deviation scores were analyzed first. The data is shown in table 2. Based on table 2, information can be obtained that the mean for the variable and Consistency of Interest is 11.8, and the Perseverance of Effort is 18.6. It can be concluded that the highest average value was obtained from the participants, namely the dimension of Perseverance of Effort. The standard deviation of Consistency of Interest is 3.71, and Perseverance of Effort is 3.31 and is not much different. The minimum value for Consistency of Interest is 4, and the maximum value is 24, while the minimum value for Perseverance of Effort is 7, and the maximum value is 24. The two maximum values in the dimensions of Perseverance of Effort and Consistency of Interest reach the highest value of the total score.

**Table 2. Descriptives**

	Consistency of Interest	Perseverance of Effort
N	754	754
missing	0	0
mean	11.8	18.6
median	12	19
Standard deviation	3.71	3.31
Minimum	4	7
Maximum	24	24

Table 3 shows the results of the grit level categorization in each dimension. Dimensions of Consistency of Interest, moderate-level participants dominate this study. Meanwhile, the Low level on the Consistency of Interest dimension is higher than the participants at the high level. This shows that participants tend to have lower Consistency of Interest during a pandemic. On the Perseverance of Effort dimension, moderate-level participants also dominate this study. However, on the Perseverance of Effort dimension, the High level of the Perseverance of Effort dimension is more than that of the Low level of participants. This shows that participants tend to have a higher Perseverance of Effort during a pandemic.

**Table 3. Category level by dimension**

Levels	Consistency of Interest		Perseverance of Effort	
	Counts	% of Total	Counts	% of Total
High	130	17.2%	147	19.5%
Moderate	485	64.3%	470	62.3%
Low	139	18.4%	137	18.2%

Furthermore, the table compares the two dimensions: Consistency of Interest and Perseverance of Effort. 3. The results show that participants at a high level in the Perseverance of Effort dimension are more than in the Consistency of Interest dimension. This result strengthens the mean on the Perseverance of Effort dimension, higher than the Consistency of Interest dimension. This can be interpreted that the dimension of Perseverance of Effort may be considered more important than Consistency of Interest.

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Table 4. Category Level of Grit Dimension

		Consistency of Interest			Perseverance of Effort		
		High	Moderate	Low	High	Moderate	Low
Sex	Male	30	111	35	33	112	31
	Female	100	374	104	114	358	106
Semester	2	39	174	43	53	160	43
	4	81	269	83	82	270	81
	6	6	24	9	8	25	6
	8	4	18	4	4	15	7
GPA	2.00 - 2.75	2	8	1	2	8	1
	2.76 - 3.50	47	233	50	56	204	70
	3.51 - 4.00	80	244	88	89	257	66
	<2.00	1	0	0	0	1	0
Major Passion	yes	124	428	122	138	414	122
	no	6	57	17	9	56	15

Table 4. Shows the results of the level categorization of the Perseverance of Effort and Consistency of Interest dimensions based on demographic data. However, due to the disproportionate number of participants among demographics, the analysis results cannot be compared between demographics. However, table 4 explains that the high level in both dimensions is dominated by higher or more in the Perseverance of Effort dimension than Consistency of Interest.

Although the demographic data cannot be further analyzed due to the limited number of participants, it should be noted that sex has an important role in determining the high and low grit. This was found in previous studies, which said that Grit was more prominent in males than females (Tang et al., 2021). However, it is different from other studies, which say there is no difference in Grit between the sexes (Hodge et al., 2018). Another point to note is that our participants scored higher for Perseverance of Effort than Consistency of Interest. Because the previous literature said that only Perseverance of Effort was more prominent in predicting academic engagement and students' subjective well-being. Meanwhile, Consistency of Interest is not the case (Datu et al., 2016). Do we think that the collective culture in Indonesia is the answer to the results of this research? This study has limitations. Participants are not balanced based on demographics. Besides that, this study only reveals the condition of the two dimensions of Grit, namely Consistency of Interest and Perseverance of Effort, that students have during the COVID-19 pandemic during online learning. However, this research implies that during the COVID-19 pandemic, students must increase their learning motivation with their Perseverance of Effort. Because Grit has been shown to eliminate adverse environmental effects (Blalock et al., 2015), and Grit has a positive relationship with academic engagement and productivity (Hodge et al., 2018). In addition, Grit is positively related to all well-being factors (Vainio & Daukantaitė, 2016) so that students can still carry out their activities as mentally healthy students. As the results of previous studies said, Grit affected mental health (Musumari et al., 2018)

#### IV. CONCLUSIONS

The COVID-19 pandemic is still ongoing until the end of April 2022. The impact can still be felt in the implementation of online learning. Students who take online learning do not always have a strong learning motivation. On the other hand, online learning has a fairly serious impact on the effectiveness of learning. This study examines how Grit is a personality trait possessed by students during online learning. We find that the dimension of Perseverance of Effort is higher than Consistency of Interest. It can be concluded that during a pandemic, students in collective countries may emphasize perseverance than what is called passion.

#### REFERENCES

- 1) Agustina, M., Azizah, E. N., & Koesmadi, D. P. (2021). Pengaruh Pemberian Reward Animasi terhadap Motivasi Belajar Anak Usia Dini selama Pembelajaran Daring. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, 6(1), 353–361.
- 2) Ahmadi, S., & Syahrani, S. (2022). Pelaksanaan Pembelajaran di STAI Rakha Sebelum, Semasa dan Sesudah Pandemi Covid-19. *Adiba: Journal of Education*, 2(1), 51–63.
- 3) Angela, D. (2016). *Grit: The Power of Passion and Perseverance*. Scribner, New York.
- 4) Blalock, D. V., Young, K. C., & Kleiman, E. M. (2015). Stability amidst turmoil: Grit buffers the effects of negative life

## Consistency of Interest and Perseverance of Effort in Pharmacy Students During Online Learning

events on suicidal ideation. *Psychiatry Research*. <https://doi.org/10.1016/j.psychres.2015.04.041>

- 5) Datu, J. A. D., Valdez, J. P. M., & King, R. B. (2016). Perseverance Counts but Consistency Does Not! Validating the Short Grit Scale in a Collectivist Setting. *Current Psychology*, 35(1), 121–130. <https://doi.org/10.1007/s12144-015-9374-2>
- 6) Duckworth, A. L., Peterson, C., Matthews, M. D., & Kelly, D. R. (2007). Grit: Perseverance and Passion for Long-Term Goals. *Journal of Personality and Social Psychology*, 92(6), 1087–1101. <https://doi.org/10.1037/0022-3514.92.6.1087>
- 7) Duckworth, A. L., & Quinn, P. D. (2009). Development and Validation of the Short Grit Scale (Grit-S). *Journal of Personality Assessment*, 91(2), 166–174. <https://doi.org/10.1080/00223890802634290>
- 8) Hodge, B., Wright, B., & Bennett, P. (2018). The Role of Grit in Determining Engagement and Academic Outcomes for University Students. *Research in Higher Education*. <https://doi.org/10.1007/s11162-017-9474-y>
- 9) Izzatunnisa, L., Suryanda, A., Kholifah, A. S., Loka, C., Goesvita, P. P. I., Aghata, P. S., & Anggraeni, S. (2021). Motivasi Belajar Siswa Selama Pandemi dalam Proses Belajar dari Rumah. *Jurnal Pendidikan*, 9(2), 7–14.
- 10) Musumari, P. M., Tangmunkongvorakul, A., Srithanaviboonchai, K., Techasrivichien, T., Suguimoto, S. P., Ono-Kihara, M., & Kihara, M. (2018). Grit is associated with lower level of depression and anxiety among university students in Chiang Mai, Thailand: A cross-sectional study. *PLOS ONE*, 13(12), e0209121. <https://doi.org/10.1371/journal.pone.0209121>
- 11) Muthmainnah, A., Rahma, D., Robi'ah, F., & Prihantini, P. (2022). Dampak Pandemi Covid-19 terhadap Kegiatan Ektrskurikuler di Sekolah Dasar. *Jurnal Basicedu*, 6(1), 394–406. <https://doi.org/https://doi.org/10.31004/basicedu.v6i1.1964>
- 12) Nishikawa, K., Kusumi, T., & Shirakawa, T. (2022). The effect of two aspects of Grit on developmental change in high school students' academic performance: Findings from a five-wave longitudinal study over the course of three years. *Personality and Individual Differences*, 191, 111557. <https://doi.org/https://doi.org/10.1016/j.paid.2022.111557>
- 13) Pahriji, I. A. (2021). Pengaruh Lingkungan Belajar Terhadap Motivasi Belajar Mahasiswa dalam Pembelajaran Jarak Jauh Selama Pandemi. *Jurnal Citra Pendidikan*, 1(3), 380–387.
- 14) Ris, E. W. (2015). Grit: A short history of a useful concept. *Journal of Educational Controversy*, 10(1), 3.
- 15) Said, M. S. (2021). Kurangnya motivasi belajar matematika selama pembelajaran daring di MAN 2 Kebumen. *Jurnal Ilmiah Matematika Realistik*, 2(2), 7–11.
- 16) Tafdhila, T., Marleni, L., & Saputra, A. (2021). Pengaruh Pembelajaran Daring Terhadap Motivasi Belajar Di Masa Pandemi Covid 19 Pada Mahasiswa Keperawatan Stik Siti Khadijah Palembang. *Jurnal Perawat Indonesia*, 5(1), 576–584.
- 17) Tang, X., Upadyaya, K., & Salmela-Aro, K. (2021). School burnout and psychosocial problems among adolescents: grit as a resilience factor. *Journal of Adolescence*, 86, 77–89.
- 18) Vainio, M. M., & Daukantaitė, D. (2016). Grit and Different Aspects of Well-Being: Direct and Indirect Relationships via Sense of Coherence and Authenticity. *Journal of Happiness Studies*, 17(5), 2119–2147. <https://doi.org/10.1007/s10902-015-9688-7>
- 19) Wahyudi, A., & Yulianti, Y. (2021). Studi Komparasi: Motivasi Belajar Siswa Pada Pembelajaran Daring dan Luring di UPT SDN X Gresik. *Jurnal Basicedu*, 5(5), 4292–4298.
- 20) Zurriyati, E., & Mudjiran, M. (2021). Kontribusi Perhatian Orang Tua Dan Motivasi Belajar Terhadap Keterlibatan Siswa Dalam Belajar (Student Engagement) Di Sekolah Dasar. *Jurnal Basicedu*, 5(3), 1555–1563.



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## Shifting Identities of Kashmiri Women



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**ABSTRACT:** Secularism and Islamic Law are two of the most important factors in understanding the socio-religious aspects of Muslim society in non-Muslim nations. When it comes to Muslim Personal Laws, in India, a Muslim may choose to follow state law, which is based on religious law, which demonstrates that the state is trying to go in a more liberal manner. Half-widow has been a significant cause of discomfort in Kashmiri society, state and federal authorities, human rights, activists, and religious ulama for a long time, ever since the war began there. A search for their identity, survival, and safety was unnecessary as long as their spouses were part of mainstream society or culture. They are neither a married lady nor a widowed woman. Zoon's (one of the Half-widows from Jammu and Kashmir's district Srinagar) struggle that changeover her from wife to Half-widow and subsequently from Half-widows to widow would help us understand the crises of changing identities. Though the Half-widow problem is not easily comprehended, it may be grasped by examining the different societal ramifications that impact economic and theological reality. The purpose of this study is to examine how Islamic and State Laws are intricately woven together to ensure the operation of the Indian Muslim society.

**KEYWORDS:** Half-widows, Secularism, Marriage, Divorce, *Fatawa*.

### INTRODUCTION

Islam's legal system was in its infancy during the Prophetic period, hence it was not established. Islamic jurisprudence was used to address new concerns and challenges that arose as Islam expanded around the globe. Over time, beginning with the prophetic age, the Caliphate, and the dynastic reign of the Umayyads and Abbasids, the Islamic Laws have been refined and expanded upon by successive generations. A vast variety of *Fatwas* have been developed by the Muftis throughout the years, which may be changed according to the time and the necessity of the hour by adopting various principles of *Usool al-Fiqh*. (Hallaq, 2009).

The two primary agencies to concentrate on in order to comprehend the socio-religious features that exist in Muslim society today under non-Muslim governments are Secularism and Islamic Law. The former may be seen as a 'doctrine and political' arrangement inside the contemporary state (Lemons, 2019), whilst the latter is concerned with the *Fatwa*'s development. In India, a Muslim can choose State Law over Religious Law when it comes to marriage and divorce procedures, such as the Sharia Act, Muslim Personal Law, and Dissolution of Muslim Marriage Act 1939, all of which are based on codes derived from Religious Law, demonstrating that the Indian constitution is still liberal and pluralistic. The 'Shifting Identities of Half-widows of Kashmir' is examined in this article in light of Islamic Pluralism and Indian secular legislation. The issue has sparked heated discussion among Indian state and federal authorities, Kashmiri society, human rights campaigners, and religious ulamas alike (clergy).

Islam like other religions, provides the mechanism to snap this marriage contract by either side of the partners. Although the right of *Talaqh*, in the *Shariah* is restricted to the Husband only, the wife has also been given a right to apply to a court of law, in certain situations, for the dissolution of her marriage. If the court is satisfied after hearing both the parties that the application is based on such grounds as warrant the dissolution of the marriage according to *Shariah*, it may pass a decree of dissolution whereby the marriage is dissolved. In this regard women's property is not divided during a divorce but of the man if divorce occurs. A woman is entitled to support and maintenance from her former husband if she requires. Despite, *Talaq* being an option for man, a woman can apply for dissolution of her marriage through *Khulah*, *Fasakh* etc. *Khulah* means redemption of marriage contract by partners and she can also apply for *Fasakh* in court, particularly in case when her husband is missing it is the duty of Qazi/Mufti to dissolve the marriage after valid investigation. Death is a natural reason that ends the marriage contract, which comes with rights of heritage for the widow or widower, but on the other hand divorce breakdowns the marriage agreement. Be it *Talaqh*, *Khulah*, *Fasakh* or death, a woman is intended to have a waiting period after the dissolution of her marriage, called the *Iddah* says Amer Ali. Likewise, a Half-widow after performing the *Iddah* for a particular period can go for second marriage.

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The work done in *Al-Hilat al Najizah al Ajizah* by Maulana Ashraf Ali Thanvi, a book on Muslim women's right to judicial divorce led to the enactment of the Dissolution of Muslim Marriage Act 1939. There are rulings for the wife of a missing person as it is not obligatory for her to remain in her marriage as she is not able to manage herself mentally or physically. Islam promotes remarriage option for both male and female. Giving preference to the Maliki school of thought states the wife of a missing person will have to wait for four years and after that she could remarry says Ashraf Ali Thanavi.

K.N. Ahmed in the book "The Muslim Law of Divorce" (1978) explaining the religious sanctioning of Divorce, says that the Muslim Law for the case of missing husband is based on a tradition of the Prophet Muhammad (p.b.u.h) in which it is reported that, "Prophet himself have said with respect to the wife of a missing person that she is his wife until such time as her husband's death or divorce shall appear. Ali (a.s), the fourth Caliph has followed this tradition and has stated that a wife, in such circumstances shall wait till she receives news of her husband's death or her divorce. Umar (a.s), the second Caliph is said to have subsequently adopted the view of Ali (a.s)", is described in one of the chapters titled "*Mafqud al-Khabar*" (pp 500-501).

The main purpose of marriage and family life in Islam is the maintenance of health, purity, piety and chastity; a Muslim woman has the right to be maintained even if she is herself rich; while having a right to earn, own and inherit property she cannot be forced to maintain anyone, not even her own-self, she is in an advantageous financial position, says M. Afzal Wani in his book "*The Islamic Law on Maintenance of Women, Children, Parents & Other Relatives*" (1995). Also, for the dissolution of marriage, he mentions that the *Quranic* provisions are not expressing whether the marriage tie is to be dissolved or not on the husband's inability, failure or refusal to maintain his wife. However, different jurists try to derive support in favor of their opinion from different *Quranic* verses for the dissolution of marriage on the ground of non-maintenance.

Anwar Ahmed Qadri in his work, "*The Dissolution of Muslim Marriage Act, 1939*" (1961) mentions that by enacting the Dissolution of Muslim Marriage Act, 1939, the legislature has made a distinct endeavour to ameliorate the lot of the Muslim wife, to follow the changing time, by taking into account the circumstances of actual life and the change of people's habits and mode of living. The book is a commentary on the Dissolution of Muslim Marriage Act, 1939, that helps to understand the context when the law was laid down.

M. A. Qureshi discusses the termination of Marriage through *Fasakh* (Cancellation of marriage), where the power of the *Qazi* or judge to pronounce a divorce is found to play a vital role. Before the Dissolution of Muslim Marriage Act, 1939 was passed Muslim ladies could only apply for the dissolution of their marriage under the doctrine of *Fasakh*. There existed no unanimity between the different school of Muslim law on the question of dissolution of marriage at the instance of the wife. The schools were also not clear on the question of the procedure to be followed. The rule of *Fasakh* is applied to the case of Half-widow for the dissolution of their marriage if they are willing to end the marriage contract.

Half widow, Half wife? Responding to Gendered Violence in Kashmir (2011) is a report that inspects the situation of women identified as 'Half-widows' whose husbands 'disappeared' but not declared dead. The year 2008, 2009 and 2010 is the period where women were recognized by common people as the Half-widows as revealed in this report. In the major finding the estimated figure of Half-widows is 1500, only in Kashmir. The Half-widows are unentitled for pensions and other government relief and thus face financial crises. Also, space is given to the Children of Half-widows who often face emotional hardships as being traumatized and are vulnerable to impoverishment and exploitation. On the other hand, the civil society organizations addressing various socio-economic insecurities faced by Half-widows are hindered by current laws, a lack of resources, and lack of outside support to develop programming for Half-widows and their children. Due to conflict Half-widows and their wards are not only victims of political conflict but are disposed to harassment both mental and social, stand as a contrast reminder of alienation, and thus impede resolution in Kashmir.

The report not only highlighted the situation faced by the Half-widows but also recommended the several initiatives. Out of four suggestions, the first three are for the Government and the fourth one is for the society in particular. According to the first suggestion, it talks about the immediate compensation for Half-widows along with convene a special bench of the High Court to expedite their case. The second proposal is for passing special legislation on enforced disappearances, keeping with the International Convention for the Protection of All Persons from Enforced Disappearances, which the Indian government has signed and must ratify. Legal immunity to the armed forces be amended and disappearance case in general be resolved and families be told about the whereabouts of their near ones, dead or alive is the third proposal. Lastly, the Civil society- local, Indian, and International must recognize issues faced by the half-widows and advocates the government for meaningful change, while itself funding initiatives such as health care programs and income-generating projects that take a rights-based approach to directly aid Half-widows and their children. This report will be used frequently in conducting this research.

In the article "*Women and Armed Conflict: Widows in Kashmir*" (2014), Farah Qayoom mentions that the armed conflict has direct and indirect effect on individuals living in Jammu and Kashmir. Particularly women became the vulnerable victims, but some of

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the women victims break the stereotype. Women who were only identified as housewives, after being victims of armed conflict came up as the bread-bearers of their family.

With time greater number of civilian casualties are involved in Jammu and Kashmir armed conflict, says Soludia Qutub in *Women Victims of Armed Conflict: Half-widows of Jammu and Kashmir* (2012), where women are the worst sufferers however their conditions are often not much visible or acknowledged. The phenomenon of Half-widows appeared after the large-scale disappearance of men in the ongoing conflict in Jammu and Kashmir particularly after the year 2008 and 2009. The traditional system where women were dependent on their men for food and shelter, all of a sudden changed after the disappearance of their husbands, which resulted in socio-economic vulnerabilities. Some who had children moved on for providing a better life for their wards but due to social pressures stopped searching about their disappeared husband.

Heena Qadir in her article *Social issues of Widows and Half-Widows of political conflict: A study of Anantnag district of Jammu and Kashmir* (2017) says that Kashmiri women have challenged the label of Victims and played a robust role in civil society, even though are not often seen in leadership positions. Widows and Half-widows are a stark and pernicious, often unidentified, face of the insecurity in Kashmir that stands as a hindrance to broader improvement.

Sadaf Anjum and Shahina Maqbool in the article *Role of Hope and Perceived Social Support in Predicting Posttraumatic Growth among Half-Widows in Kashmir* (2017), elaborate the significant positive correlation between hope, perceived social support and posttraumatic growth among Half-widows. The case study of Half-widows analyzed by the authors clearly states that religion and society is important for the upliftment of Half-widows. Kashmiri mostly are Muslims and some the followers of sufi orders, which help the victims to accept their vulnerable condition and so taking life positively. The upliftment is not only by providing financial support the moral and ethical behavior of the people can help the Half-widows and their wards bring them back to normal.

Kashmiri women who have lost their spouses or who are still missing are referred to as half-widow. Half-widows are going through an identity crisis since they don't know whether their spouses are living or dead (Anonymous, 2011). Because it is not recognised by state law, these half-widows have no legal rights to an equitable economic settlement based on the standards of goods or adequate prevailing in society at any given moment, as every government plan requires their husband's death certificate. Aside from that, they are entitled to government compensation if their spouses are killed in the course of innocent and custodial murders, of which they are still uninformed. In their optimistic fight for life and justice, these Half-widows have become emotionally and financially unstable. In Islamic Jurisprudence, however, the Arabic name 'Zoj Mafqud' for half-widows is recognised. (Thanawi, 2014).

It is important to understand that in today's Indian Muslim society, there are several main forums - *Dar ul Qaza*, *Dar ul Ifta*, *Mahila Panchayat* and some civil societies - to which Muslims can turn for assistance with marriage and divorce procedures. *Dar ul Qaza* is the most important of these forums. For example, the *Dar ul Qaza*, *Dar ul Ifta*, *Mahila Panchayat* and civil societies operate in parallel with state law (Lemons, 2019), following the Muslim Personal Law and the Dissolution of Muslim Marriage Act (both derived from religious laws) in support of the Evidence Act 1872, which has been chosen by half-widows in Kashmir as the legal framework. The concept of Half-widows changing their identities is difficult to grasp; however, the case study of Sheen (one of the Half-widows from the district Srinagar in the state of Jammu and Kashmir, name changed) provides a clear understanding of how Islamic Laws and State Laws are intricately intertwined for the functioning of Indian Muslim society.

### CASE STUDY

In spite of the fact that she is 47 years old, Sheen has been living the life of a Half-widow for more than 23 years, and she is still hopeful that she would one day be notified of the location of her husband. When she went home from a relative's wedding on the night of the 7th July 1997, she had no idea how her life would alter. She began by searching for her husband in the neighbourhood, when she was told that her husband, Abdul Rasheed, had been abducted by a group of people dressed in army uniforms and brought away in an army bus. She was able to get information from her husband's buddy, who had been with him on that awful day, that the army and a group of people who were dressed in a casual manner had initially asked Rasheed to come to a halt from the window of the army bus. Rasheed came to a halt following the second call from the armed forces outside the JVC hospital and was forced to produce his identification before being carried away by the unknown assailants. They searched for her husband in every local police station, in every prison and army camp, and even in Tihar Jail in Jammu, where she was detained with her in-laws and two children.

As a matter of Islamic law, her case falls under the category of sensitive divorce cases known as *Fasak e Nikaah*, in which the Iddah and subsequent remarriage issues are handled under the supervision of a *Qazi/Muft*, and which have equal relevance under the Indian Constitution's Dissolution of Muslim Marriage Act, 1939. She never acknowledged her husband's death and never attempted to seek counsel on her predicament from the *Dar ul Qaza* (India's government-recognized Muslim Personal Law Board) or the *Dar ul Ifta* (India's Muslim Personal Law Board) (*Fatawa* giving Institutions).

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Putting her emotions aside, she sought assistance from the Association of Parents of the Disappeared Person-APDP, (a civil society) and received some financial assistance at the outset, but she eventually managed to obtain legal guidance in order to be declared a widow by law, allowing her to receive the compensations from the government that are available to widows of those who have disappeared. She followed up on the matter for a total of 10 years in a row, and finally an order was issued to the lower court to investigate the disappearance of her husband, which was carried out. Only then was she presented with the F.I.R. stating that her husband had gone missing, and the situation comes under the category of custodial disruption under Section 364 of the RSP. It was also almost difficult to request a fresh inquiry at this time. She almost lost everything in her hunt for her husband, and she was unable to find any more evidence of his whereabouts. Between then and now, she used to attend APDP demonstrations, hoping that the government would bring about justice for all of the cases that had been brought by the party, including her husband's case, which was one of them. An order was issued pronouncing her marriage to be automatically dissolved under the Dissolution of Muslim Marriage Act 1939, after the filing of the lawsuit at the lower Court of Jammu and Kashmir by APDP-provided lawyers.

In general, the Indian government has approved the Dissolution of Muslim Marriage Act 1939, which gives Indian Muslim women the authority to terminate their marriage contracts with their husbands. Particularly relevant to half-widows in Jammu and Kashmir are the first three clauses of the Act, which provide grounds for a decree of dissolution of marriage in the following circumstances: when a wife does not know where her husband is; when a wife does not receive maintenance for a period of time or more; and in some cases, when a wife is aware that her husband has been sentenced to imprisonment for seven years or more. Following the Evidence Act of 1872, the half-widows are issued with a death certificate for their spouse, making them eligible to qualify for government initiatives in the future. Sheen was eventually able to get compensation from the government in the amount of Rs 3 lakh after the ruling.

### ANALYSIS OF THE CASE STUDY

Sheen is dealing with her identity, and she is unable to identify as either married or a widow at this time. The case study of Sheen sheds insight on the following aspects of her personality::

1. Given that she has no idea where her spouse has gone, she is attempting to establish her own sense of self in the community.
2. Throughout her journey, she was subjected to social humiliation, emotional agony, and financial hardship.
3. She took the financial aid from APDP, a civil society of Jammu and Kashmir, an internationally recognized human rights organization following laws laid down by the State law.
4. She took legal support from APDP over the guidance she could have received from *Qazi/Mufti* through All Indian Muslim Personal Law Boards or through the *Dar ul Ifta*, where she performed Iddah for four years.
5. Since her case was decided through judicial interpretation of Dissolution of Muslim Marriage Act 1939 by the Judiciary, her identity shifted from a Half-widows to a widow. And she became eligible for the financial support provided by the government besides what she will inherit from her deceased husband's property.
6. If her case would have been resolved in accordance with Personal Law (*Dar ul Qaza* or *Dar ul Ifta* by All Indian Muslim Personal Law Board) without judicial intervention, then she would have been declared a divorcee and would have been eligible for the maintenance through the Property Inheritance Right.

### CONCLUSION

In India, Islamic Laws are regarded within the jurisdiction of the State Law, which takes into account the basic right to religious freedom. It is shown that the Qazi/muftis are given the authority to discuss issues that have been approved by the Indian government by the All India Muslim Personal Law Board, which is a private organisation working to protect Muslim personal laws, liaise with and influence the Government of India, and guide the general public about marriage and divorce. Their powers are limited in comparison to those of the Indian judiciary, but they work in tandem to improve the lot of Indian Muslims. Identities of half-widows differ depending on whether they are following the Indian Judiciary or the Personal Laws. Depending on her status, she may be considered a widow, or a divorcee, which may affect her eligibility for government-sponsored financial assistance in India.

### REFERENCES

- 1) Ali, Amer. "A Brief Review and Critical Analysis of the Major Theological Positions Classical Muslim Scholars had on Whether Actions are Part of Iman." *Australian Journal of Islamic Studies* 4, no. 2 (2019): 52-67.
- 2) Ahmed, Kazi N. *The Muslim Law of Divorce: With a Forew. by S. Anwar-ul-Haq*. Bhavan, 1978.

## Shifting Identities of Kashmiri Women

- 3) *Role of Hope and Perceived Social Support in Predicting Posttraumatic Growth among Half-Widows in Kashmir'*
- 4) Arafat, Y. (2015). The Dissolution Of Muslim Marriage Act, 1939 May Provide More Rights To Women Of Subcontinent If Applied According To True Doctrine Of Maliki School Of Islamic Jurisprudence: An Overview. *Pakistan Journal of Applied Social Sciences*, 1(1), 59-74.
- 5) Association of Parents of Disappeared Persons. "Half widow, half wife? Responding to gendered violence in Kashmir." (2011).
- 6) DOI:<https://archive.org/details/Al.Hilatul.Najijah.By.Asraf.Ali.Thanwi>
- 7) Hallaq, Wael B. *An introduction to Islamic law*. Cambridge University Press, 2009.
- 8) Lemons, Katherine. *Divorcing traditions: Islamic marriage law and the making of Indian secularism*. Cornell University Press, 2019.
- 9) Qadri, Anwar Ahmad, and Vijay Malik. *Muslim law of marriage, divorce and maintenance: being a revised and enlarged version of AA Qadri's Commentary on the dissolution of Muslim Marriage Act, 1939*. Eastern Book Co., 1988.
- 10) Qadir, Heena. "Social issues of widows and half-widows of political conflict: a study in Anantnag district of Jammu and Kashmir." *International Journal of Humanities and Social Science Research* 3, no. 10 (2017): 6-12.
- 11) Qayoom, Farah. "Women and armed conflict: Widows in Kashmir." *International Journal of Sociology and Anthropology* 6, no. 5 (2014): 161-168.
- 12) Qureshi, Mohammed Ahmad. *Marriage and matrimonial remedies: a uniform civil code for India*. Concept Publishing Company, 1978.
- 13) Qutab, Soudiya. "Women victims of armed conflict: half-widows in Jammu and Kashmir." *Sociological Bulletin* 61, no. 2 (2012): 255-278.
- 14) Wani, M. Afzal. "Maintenance of Women and Children Under Muslim Law: Legislative Trends in Muslim Countries." *Journal of the Indian Law Institute* 45, no. 3/4 (2003): 409-428.



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## Cross-Examining the Trainability Theory of Entrepreneurship as a Strategy against Unemployment in Kogi State Nigeria



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**ABSTRACT:** Despite efforts by the government and policymakers in Kogi State Nigeria through entrepreneurship training aimed at reducing the rate and level of unemployment in the state, the outcome has continuously remained unimpressive. The study cross-examined the trainability theory of entrepreneurship as a strategy against unemployment in Kogi State, Nigeria. With a population of 910 registered entrepreneurs in the state, a sample of 278 respondents was drawn and used for the study. Regression was used to test the formulated hypothesis. The study recorded a strong and positive alliance between the trainability theory of entrepreneurship and employment level in Kogi State. It was concluded that the trainability theory of entrepreneurship is a strategy against unemployment in Kogi state Nigeria and recommended that active youths in Kogi State should be encouraged to constantly develop self, believing in their capabilities to exploit hidden entrepreneurial opportunities as this will reduce unemployment level to the barest minimum in Kogi State Nigeria.

**KEYWORDS:** Strategy, Trainability-theory, Self-efficiency, self-development, Entrepreneurial- alertness and Unemployment

### I. INTRODUCTION

Unemployment is a serious problem bedeviling many young graduates, especially in third world countries like Nigeria. The scourge has given rise to increased militancy in many parts of Nigeria including Kogi State. Violent crimes among the youths are more pronounced now than before and other societal ills amongst the middle-aged are almost a norm. Youth unemployment is devastating not only to the individual but to humanity at large due to its physical and economic effects (Akpata, 2019). In Nigeria, the "evil" has defiled all medications and has gotten to an alarming state. Various strategies have been experimented with by successive governments to reduce the saga (James, 2019). The present experiment being showcased by stakeholders and policymakers in a bid to reduce unemployment if not eradicate the trend is the special training of undergraduates in the universities and other tertiary educational institutions in vocational and self-sufficient courses. Others include the introduction of entrepreneurial and entrepreneurship programs in the institutions of higher learning among others (Edith, 2019). Anoke, Osita, Eze, and Muogbo (2021) assert that the main objective of this is to turn out many graduates who will be self-employed, be job-independent after graduation as well as those who will be job creators rather than seekers. If this is done, there will be a multiplier effect on the economy and the era of unemployment in Kogi State and by extension, Nigeria will be a thing of the past.

Abata (2018) noted that in more than 40 million jobless but ready-to-work youths in Nigeria, more than half of this population are unemployable and therefore vulnerable to social crime. There is the need to articulate what could be done to salvage the situation and reclaim their future. He maintained that the speed at which social and domestic violence increases is high and attributed it to the fact that most graduates are not mindful of entrepreneurial training while in school or home

Government at all levels in Nigeria, in response to this clarion call, has continued to strive hard to curtail this contagious effect of unavailability of jobs for the youths in this part of the world through training and retraining them, especially in the agricultural sector thereby developing their managerial and technical skills through vocational training (Peter, 2018). Regardless of the various strategies adopted by successive governments and economic players by establishing several programs, policies, and training centers such as the National Acquisition and Apprenticeship Scheme, SMEs Development Agency, Subsidy Reinvestment program, and more recently, N-Power, which was aimed at achieving inclusiveness and productivity among Nigeria youths in Nigeria. The outcome has remained unimpressive and the need to cross-examine the trainability theory of entrepreneurship as a strategy against unemployment in Kogi State, Nigeria becomes imperative and timely. The main reason for this study is to cross-examine

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the trainability theory of entrepreneurship as a strategy against unemployment in Kogi State Nigeria.

Specifically, the study set to determine the effect of entrepreneurs' self-efficacy, self-development, and entrepreneurial alertness as a strategy against unemployment in Kogi State Nigeria.

To achieve the objective of the study, the hypothesis below was developed and tested:

**Ho1:** Self-efficiency, self-development, and entrepreneurial alertness have no significant effect on the unemployment level in Kogi State, Nigeria.

## **II. REVIEW OF RELATED LITERATURE**

### **Conceptual Framework**

Nigeria, like most African countries, is endowed with abundant human and material resources, which if well managed can take the youths out of the streets and put the country on the world map economically. A Successful, entrepreneurially minded and focused youth populace in any given society, remains a vital part of the society, who can create a sound economic future for the nation. However, systematic neglect of this all-important group of active people is no doubt the most harmful trade and waste of resources (Moses2019).

Moses (2019) noted that entrepreneurs are vital in boosting and sustaining economic growth, fostering development in society through job creation and youth empowerment. As a result, policymakers have been focusing and paying key attention to entrepreneurship training and development. Abiodun (2018) argued that many Nigerian youths who graduated from tertiary institutions cannot find paid jobs and are equally not entrepreneurially inclined thereby unable to positively utilize their youthful energies. The worst affected are the unskilled, uneducated, and most often, primitive youths in the rural areas, who are at the prime of their physical and mental powers. Naturally, this segment should form the productive foundation of any economy. But in Nigeria, the story is different as they roam the streets of major towns in the country in search of livelihood and employment opportunities.

### **Concept of Self-Efficacy**

Self-efficacy has suffered many definitions as many scholars have attempted to define the concept according to how they perceived it. Self-efficacy according to Albert (2012) is a personal belief on how one can perform and achieve the required result in any given situation. The unemployment situation in most developing countries, Nigeria inclusive calls for urgent attention, and every good hand must be on the deck to achieve a positive result.

Mateja, Joakim, and Melissa (2010) noted that entrepreneurial efficacy deals with individuals' belief in respect to their capabilities, thinking abilities to deliver the assigned task at the stipulated time. Awodi (2018) summed it up by noting that self-efficacy is a vital tool needed by the unemployed in society as a driving force or propeller to achieve the desired economic goals in life.

### **Concept of Self-development**

Personal development is the activities embarked upon by an individual that expands a person's knowledge, capabilities, brings out the hidden potentials, and increases the human capital base of the person thereby assisting in the employability and realization of dreams and aspirations of the person in question. Tseng(2013) noted that for entrepreneurs to maximize their potentials and be self-developed, they must be focused and develop a means that could provide insights on how to improve self-developing techniques and learning capabilities that will help surmount both internal and external business environment. These abilities and talents are considered basic for fashioning entrepreneurial growth if well applied.

Paul (2017) argued that self-development requires a continuous and persistent upgrading and updating one's self and responding to various individual, societal and environmental demands that occur from the interaction among experiences, conceived ideas, gained knowledge, and practical actions. Kelvin (2015) noted that self-directed learning and vocational activities have contributed to the development of entrepreneurial activities and entrepreneurship in many parts of the world including Nigeria and is gradually gaining ground as a vital determinant in the outcome of entrepreneurial output (Nushood, 2015). Self-education and self-development, with strong knowledge intention, have emerged as the primary ways of developing entrepreneurs' esteem to meet the complex demand associated with the dynamic working environment. These if well directed and applied, will help in reducing the rate of unemployment in developing countries like Nigeria.

### **Concept of Entrepreneurial Alertness**

Entrepreneurial alertness no doubt is a vital component in entrepreneurship that plays an important role in opportunity recognition through brainstorming, where businesses are always on the lookout for ways to innovate or improve. Tsebam (2018) argued that entrepreneurial alertness plays a vital role in an entrepreneur's business growth in a modern business environment as it alerts the individual's concern about the opportunities available at a particular time. It is thus necessary that entrepreneurs

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pay key attention to what happens in and around their surroundings, take appropriate action, and harvest from the opportunities and openings not apparent to others if they must succeed in their business ventures. In a related development, Gaza (2013) suggested that the constituent believed to be entrepreneurial in human acts and inactions is the alertness to knowledge rather than the possession of such knowledge or information if not judiciously used.

Amos (2018) conceived that people having a high entrepreneurial mindset and alertness qualities will perceive entrepreneurship better, notice environmental changes earlier, and have more adaptive abilities, with a physical and mental framework that will result in increased productivity and reduction of unemployment. Ibeh (2017) argued that there is a strong and positive connection between business alertness, creativity, and innovativeness, which will help in taking many jobless youths out of the street.

### **Unemployment in Nigeria**

Unemployment has eaten deep into the fabrics of Nigeria and all efforts by successive governments to arrest the ugly trend have proved abortive. Edison (2018) identified neglect of agriculture, wrong impression about technical and vocational education, poor leadership styles, corruption, and uncontrolled population growth as some of the factors responsible for unemployment growth in Nigeria.

Ojima (2019) noted that the continuous neglect of this jobless but critical segment of the society, a large number of whom are educated, untrained, but have the potential to work and contribute their quota to the economic growth, represents a waste of human resources and a time bomb capable of destabilizing the society. The youths who are considered as the most assets in any nation, if properly harvested and channeled are drivers of economic development and sustainability (Kazeem, 2017).

Obinna (2019) argued that the cost of bloated unemployed people in any given society, normally used during the political period as thugs is unhealthy for any nation in the world.

Francis (2019) opined that since youth unemployment in Nigeria has defiled all medications in recent times, causing huge sleepless nights and challenges to policymakers and reducing national progress, all attention, available resources (time, money, and human) must be effectively and efficiently mobilized in that direction to nip the persistent problem in the bud through proper training of entrepreneurs that will have a positive effect on productivity and enhances employment generation.

### **Empirical Literature**

Several studies were reviewed during this study. This enables the researcher to take a concrete stand on a topical issue like cross-examining the trainability theory of entrepreneurship as a strategy against unemployment in Nigeria.

Ho-M et al (2018) examined entrepreneurship systematic training and its impact in Singapore. Knowledge activities on entrepreneurship awareness and efficacy in young youths in that region were used in the study. A secondary source of data was adopted and 335 students from six secondary schools of 13-18 years of age were used; 32.8% for males and 67.2% for females were relied upon in the analysis. The findings revealed that the students who are entrepreneurially trained and have vocational orientation had higher entrepreneurial awareness and efficacy and generate employment against those who did not have any training. The study recommended that entrepreneurship and vocational training programs should be made mandatory among secondary school students since there are pivotal and effective instruments capable of making students self-sufficient and reducing unemployment levels in Nigeria.

The study of Ho-M et al (2018) captured the sample size of the study but omitted a very important segment of research, which is the population of the study where the sample size was drawn from - hence, the sample size stated in the study is hanging. In addition, the statistical instrument(s) of data analysis in the study was/were not stated and as a result, the findings and recommendation therein have no scientific backing.

In a related development, Odeh and Okoye (2014) examined the effect of poverty reduction policies on youth unemployment in Nigeria. Secondary data and some indicators were used to source information for the study. The study found that bulks of the youths in Nigeria are living below the poverty level with less than a dollar per day as a result of the unemployment pandemic. It was also found that the agencies charged with the responsibility of implementing the poverty reduction policies are helping themselves against the general youth interest. The study recommended that there should be a holistic overhaul in the approach and process of job creation in Nigeria, which will give equal opportunity to all qualified youth in the society to be considered for employment.

The study of Odeh and Okoye (2014) did not meet up with the acceptable standard of research writing because of these few points: some indicators, as a means of data collection used in the study, are vague and should be expressly defined. Population, sample size determination, sample size, and the instrument of data analysis, which are vital in research; were all omitted in the study. The findings and recommendations therein are hanging on nothing.

Tseng (2013) assessed self-taught knowledge with entrepreneurial skills on entrepreneurial growth in the USA. The study reviewed

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the uniqueness of self-taught knowledge that is vital in assisting entrepreneurial knowledge in the study area. The study found that trained entrepreneurs who develop themselves and condition the mindset on available opportunities perform better in the business world. The study concluded that for value to be created, self-directed knowledge and entrepreneurial skills must be allowed to play their constitutional duties in the business sector.

Just like the study of Odeh and Okoye (2014), the study of Tseng (2013) falls short of the research standard as there was total neglect to research rules and procedures. Population, sample size, source(s) of data collection as well as the method of data analysis was not found in the study.

### Theoretical Framework

The theory upon which this study is based on is the human capital theory. The human capital theory has gained ground since the 60s as people tend to develop themselves to survive Ben-Porath (1967). Jasper (2010) argued that training is regarded as part of investment and investment creates an employment opportunity. It is, therefore, imperative that all needed attention must be paid to training. Ochocho (2015) opined that human capital theory is based on labor availability, acquired education, entrepreneurial mindset, and focused economic growth, which differentiate highly trained staff from other personnel. According to Gbenga (1989), when employees do not obtain considerable pay increase or are promoted after a specific training program, but production and outputs increased as a result of the new invested knowledge acquired through proper training, they will not be moved to continually put in their best to the organizational goals and objective. In other words, companies will be willing and keen to cover those training costs; if such skills obtained through new training will increase and enhance productivity in the firm thereby generating employment opportunities.

### III. Methodology

This study adopted the survey research design to investigate the trainability theory of entrepreneurship as a strategy against unemployment in Kogi state, Nigeria. The population used in this study was all registered entrepreneurs in Kogi state, Nigeria as of January 1st, 2021. According to the Kogi State Bureau of Internal Revenue (KSBR), there were 910 registered entrepreneurs in the state. In selecting the sample size; Yamane (1967) was adopted. The formula takes into consideration 95% confidence level and 5% sampling error level.

The formula is:  $n = \frac{N}{1+N(e)^2}$

Where n = sample size.

N = population size, e, = the level of precision (95% confidence level or 5% error of sampling)

Hence,  $n = \frac{910}{1 + 910(0.05)^2} = 278$ . Therefore, the sample size for the study is 278 entrepreneurs in Kogi state Nigeria.

The study depends on primary sources for data collection. The main source of data was through the administration of a structured closed-ended questionnaire. The questions were meant only for the registered entrepreneurs operating in the state. The scale was a five-point Likert scale, ranging from 5= Highly Agree, 4= Agreed, 3= Undecided, 2=Disagree, and 1= Highly Disagree. The coding of the data was done by allotting scores to the responses in order from 5, 4, 3, 2, and 1.

To ensure that the validity of the instrument was maintained, the initial draft of the questionnaire was subjected to content and face validation. The instrument was given to experts in Entrepreneurship Development Centre, Federal University Lokoja; as well as National Directorate of Employment, Kogi State Zonal Office, Lokoja. These professionals were asked to scrutinize each of the items in the instrument and air their opinion regarding the suitability, clarity of statements, wrongly conceived ideas, missing information, and other observed errors, bearing in mind the purpose of the study. Their comments, suggestions, and corrections were used to modify and produce the final instrument.

To establish the degree of consistency of the instrument, a pilot study was conducted in Ankpa Local Government Area of the state using 25 respondents, the instrument duly completed by the respondents was collected, analyzed, and incorporated into the final copy while Cullman split-half reliability technique was used to test the degree of reliability of the study instrument. The result of the test was subjected to Pearson Product Moment Correlation Coefficient (PPMCC) to determine their reliability; the result revealed that the instruments are reliable (0.884, 0.789, 0.792, and 0.751) for trainability theory, self-efficiency, self-development, and entrepreneurial alertness respectively.

In testing the formulated hypothesis, simple regression was used to establish the association between the variables.

The model is stated thus:

$$Y = \alpha + \beta_1 x_1 + \dots + \beta_n x_n + \epsilon$$

Y equals dependent variable,

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$\alpha$  = intercept,

$\beta_i$  is the coefficient and x is the independent variable respectively.

The model above is expressed thus:

$$SAU = \alpha + \beta_1TTE + \mu \dots\dots\dots\text{equation 2}$$

Where:

SAU = Strategy against unemployment strategy,  $\beta$  = Coefficient

$\alpha$  = Intercept,  $\mu$  = Error terms and

TTE= Trainability Theory of Entrepreneurship (Self-efficiency, Self-development and Entrepreneurial alertness)

### IV. RESULT AND DISCUSSION

To determine the relationship between the variables, a multiple regression analysis was conducted. The results are shown in the tables below:

Model Summary				
Model	R	R Square	Adjusted Square	Std. Error of the Estimate
1	.867 <sup>a</sup>	.782	.625	1.76421
a. Predictors: (Constant), Entrepreneurship Alertness, Self-Efficacy, Self-Development				

The R-square ( $R^2$ ), used to measure the goodness of fit of the estimated model shows that the model is good enough in prediction. The  $R^2$  value of 0.782 explains that the trainability theory strategy has a strong impact on the unemployment level. It confirms that about 78.2 percent of the variation of employment is explained by the trainability theory, while the remaining unaccounted variation of 21.8 percent is covered by the random variation. Therefore, it can be deduced that the relationship between Strategy against unemployment and the independent variables (entrepreneurship Alertness, self-efficacy, and self-development) is strong. The significance of the model in the study was tested using Analysis of Variance as shown below:

ANOVA <sup>a</sup>						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	309.553	3	103.184	8.753	.000 <sup>b</sup>
	Residual	3229.915	274	11.788		
	Total	3539.468	277			
a. Dependent Variable: Strategy against Unemployment						
b. Predictors: (Constant), Entrepreneurship Alertness, Self-Efficacy, Self-Development						

Source: Authors' computation, 2022

The ANOVA showed that the probability value of 0.000 was obtained. This indicates that the regression model was significant in predicting the relationship between trainability theory Strategy against unemployment level.

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	124.348	1.373		7.459	.000
	Self-Efficacy	5.638	.060	.039	.673	.001
	Self-Development	7.046	.058	.004	.873	.002
	Entrepreneurship Alertness	2.648	.055	.291	5.002	.000
a. Dependent Variable: Strategy against Unemployment						

Source: Authors' computation, 2022

A regression analysis was carried out to determine the relationship between trainability theory Strategy of entrepreneurship measured by entrepreneurship alertness, self-efficacy, and self-development against unemployment level, and the equation below was arrived at:

$$SAU = 124.348 + 5.638SE_1 + 7.046SD_2 + 2.648EA_3 + 1.373$$

## **Cross-Examining the Trainability Theory of Entrepreneurship as a Strategy against Unemployment in Kogi State Nigeria**

From the regression result above, as other factors are held constant, the strategy against unemployment was 124.348. A change in one unit in self-efficacy while other factors remained constant will change strategy against unemployment by 5.638; A change in one unit in self-development when other factors remained constant will change strategy against unemployment by 7.046; while a change in one unit in entrepreneurship alertness if other factors are constant will change strategy against unemployment by 2.648. At a 5% significance level, the analysis was conducted. The decision rule for accepting or otherwise the null hypothesis was based on the probability value (PV)  $\alpha=0.05$ . If the PV is less than  $\alpha$ , then the variable is significant otherwise, it is not. All the variables used in the study were significant as their PV was less than  $\alpha=0.05$ .

### **Discussion of findings**

Findings from the analysis showed that the trainability theory of entrepreneurship has a positive and statistically strong effect on the unemployment level in Kogi State, Nigeria. This implies that the trainability theory of entrepreneurship is a strategy against unemployment as self-efficacy, self-development and entrepreneurship alertness help in creating employment opportunities thereby reducing the unemployment level in Kogi State Nigeria. This finding is in harmony with the findings of Ho-M et al (2018) who found entrepreneurs' training and employment generation to be strongly related.

### **V. CONCLUSION AND RECOMMENDATIONS**

In conclusion, the study cross-examined the trainability theory of entrepreneurship against unemployment to access its efficacy as a strategy against unemployment in Kogi State, Nigeria. The study hypothesized that the trainability theory of entrepreneurship has no significant effect on the unemployment level in Kogi State, Nigeria.

It was found that the trainability theory of entrepreneurship has a positive and significant effect on the employment level in Kogi state Nigeria and concludes that trainability theory is a strong strategy against unemployment in Kogi state Nigeria.

The study, therefore, recommended that active youths in Kogi State should be encouraged to constantly develop themselves, believing in their capabilities to exploit hidden entrepreneurial opportunities like this will foster creativity, innovativeness thereby having a positive multiplier effect on employment generation.

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### **REFERENCES**

- 1) Abata, I. (2018). Repositioning Nigerian youths for economic empowerment through entrepreneurship and vocational training. *Journal of Economics Research*, 5(4): 11-18.
- 2) Abiodun, A. (2018). Effect of training on the SMEs productivity in Nigeria. *Journal of Small Business Research*. 2 (3): 45-60.
- 3) Akpata, T. (2019). Impact of entrepreneurship training on entrepreneurial alertness among youth. *International Journal Economics and Education*. 4(1): 74-95.
- 4) Albert, J. (2012). Entrepreneurial orientation, risk taking, and performance in family firms. *Journal Entrepreneurship Development Centre*. 6(3): 22-27.
- 5) Amos, A. (2018). Effect of training on entrepreneurship growth in a competitive environment. *Journal of Entrepreneurship Development*. 5(3): 78-91.
- 6) Anoke, A.F., Osita, F.C., Eze, S.U., and Muogbo, U.S. (2021). Business perception as a strategy for sustaining entrepreneurship in the face of insurgency in Niger State, Nigeria. *International journal of Multidisciplinary Research and Analysis*. 4(10), 1353-1360
- 7) Awodi, T. (2018) Trainability theory as a Strategy for entrepreneurship growth and development. *Journal of Agribusiness Research*, 4(3): 144-163.

## Cross-Examining the Trainability Theory of Entrepreneurship as a Strategy against Unemployment in Kogi State Nigeria

- 8) Ben-Porath Y. (1967). Multiphasic Personality Inventory of Adolescent. Pearson Publishers Incorporated, USA.
- 9) Edison, T.(2018).The Effects of entrepreneurship education and vocational training on SMES growth. *Journal of Economic Behaviour and Development*, 6(4): 90-115.
- 10) Edith, I.(2019).The Impact of entrepreneurship training on entrepreneurial output. *International Journal of Small Business and Enterprise Development*, 15(2): 382-396.
- 11) Francis, A.(2019). Stimulating entrepreneurship growth through vocational training in Nigeria. *Journal of Management research and Development*. 9(25): 38-46.
- 12) Gaza, A.(2013).). Entrepreneurship education for self-reliance in Nigerian secondary schools. *African Journal of Educational Research and Development*, 3(2): 91-111.
- 13) Gbenga, A.(1989) Effect of training on entrepreneurs productivity in manufacturing sector. *Journal of Entrepreneurship Research and Development*.6(5): 116-132
- 14) Ho-M, H.R., Uy, M.A., Kang, B., & Chan, K.Y.(2018).Impact of entrepreneurship training on entrepreneurial efficacy and alertness among adolescent youth. *International Journal of Front Education*.3(13): 174-185.
- 15) Ibeh, C. (2017).The Effect of entrepreneurship training on the growth owners-managers firms. *Journal of Economic Research and Development*.5(6): 99-121.
- 16) James, O.(2019).Barriers to Entrepreneurship Training and Development in Nigeria. *Journal of Social Sciences*, 4(5): 19-33.
- 17) Jasper, J.(2010).The impact of entrepreneurship training on entrepreneurial attitudes and intention. *Journal Business Management and Development*.7(9):25-39.
- 18) Kazeem,A.(2017). Reflections on the entrepreneurship training in Nigeria tertiary education. *International Journal of Management Sciences*, 5(4): 11-24.
- 19) Kelvin, I.(2015).Challenges and prospects of youth entrepreneurship development in Nigeria. *Journal of Behavioural Studies*, 8(11):21-33.
- 20) Mateja, D., Joakin, W., & Melissa, S.C. (2010). Entrepreneurial self-efficacy and business start-up: developing a multi-dimensional definition. *International Journal of Entrepreneurship Behaviour and Research*.16 (4):329-348.
- 21) Moses, O.(2019).Challenges facing small scale women entrepreneurs in Nigeria. *Journal of Development Economics*6(2) 195-228.
- 22) Nushood, T.(2015). Perceived self-efficacy in cognitive development and functioning. *Journal of Developmental Research*.7(6): 144-182.
- 23) Obinna, A.(2019). Toward a dynamic learning perspective of entrepreneurship. *Journal of Entrepreneurship*. 29(30): 373-397.
- 24) Ochocho, M.(2015).Effect of self-efficacy on entrepreneurial investment. *Journal Strategic Entrepreneurship*. 3(3): 241-260.
- 25) Odeh, M.A. and Okoye, C.O.(2014). Reduction policy and youth unemployment in Nigeria. *Journal of Public Policy and Administration Research* 3 (4) 100-112.
- 26) Ojima, O.(2019). Entrepreneurship training: Suggestions for increasing effectiveness. *Journal of Small Business Management* 2(3): 81-101.
- 27) Paul, A.(2017). Business accomplishments, gender, and entrepreneurial self-image. *Journal of Business Management*.3(4), 483-518.
- 28) Peter, P.(2018). Do enterprise mentoring influence students' perceptions of entrepreneurship? *Journal of Management Development Research*. 6(3): 47-62.
- 29) Tsebam, J.(2018) Environmental munificence for entrepreneurs: Entrepreneurial alertness and commitment. *Journal of Entrepreneurship Development*5(2):18-30.
- 30) Tseng, C.(2013). Connecting self-directed learning with entrepreneurial learning to entrepreneurial performance. *International Journal of Entrepreneurship and Behaviourial Research*. 19(4):425-446.



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## Intercultural Communication and Difficulties of Teaching English in ESP Classes



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**ABSTRACT:** This article discusses intercultural communication and difficulties of teaching English in ESP classes. The main task of teaching foreign languages as a means of communication between people of different nations and cultures is that languages should be studied in enduring unity with the world and culture of the people who speak these languages. A most promising and basic challenge for teachers of foreign languages is achieving maximum development of communication skills.

The question arises, how is this to be solved? Some considerations would be to develop new teaching methods that aim at improving language proficiency. Creating fundamentally new educational materials that could be used to teach people how to communicate effectively. At the same time, of course, it would be wrong to rush from one extreme to another and give up all the old techniques of teaching. Careful selection of the best, most useful, authenticated teaching practice, would be especially necessary for the purposes of specific professional situations.

**KEY WORDS:** ESP classes, intercultural communication, teaching English

### INTRODUCTION

In Uzbekistan, as in other countries, intercultural communication (IC) plays a significant role in communicating effectively. IC is defined as a dialogue, carried out between competent members of differing cultures who understand specific nuances and are thus able to affect the success and/or failure of the communication event [1] This is most evident in the business sector. Successful negotiations often depend on how well the individual parties are familiar with the national characteristics, traditions and mannerisms of their respective cultures [2]. Communicative competence is understood as the knowledge used in the communication of symbolic systems, including their rules of operation and the principles of interaction [3]. Intercultural communication is characterized by the fact that the participants in direct contact will use special language versions, other than those which they would use when communicating within the same culture [4].

Communicative competence is due to the unique and individual experience of each individual. This means that the communication, which is a messaging process, happens to constantly recreate meanings. These may not match, even if the people speak the same language and grew up in the same culture [5]. It goes without saying that in the presence of different cultures and different languages true communication becomes extremely complicated. Moreover, making true comprehension and understanding of what is being communicated semantically, virtually impossible [6]

Communication allows participants, who are relative to one another, to convey some type of information on an external level and to convey some type of internal emotional state and/or status role [7]. From a historical perspective of cross-cultural communication, the term "intercultural communication" in the narrow sense, first appeared in the literature in the early 1970s. By 1972 the construct had taken hold and gained scientific direction. At its core was the study of communication failures and their consequences in situations of intercultural communication [8]. Subsequently, the concept of intercultural communication developed further to include such areas as the theory of translation, foreign language teaching, comparative cultural studies, and others.

### SIGNIFICANCE OF INTERCULTURAL COMMUNICATION

To date, research in the field of intercultural communication focuses on the behavior of people involved with facing cultural differences regarding language activity and the consequences of these differences [9]

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The main task of teaching foreign languages as a means of communication between people of different nations and cultures is that languages should be studied in enduring unity with the world and culture of the people who speak these languages. A most promising and basic challenge for teachers of foreign languages is achieving maximum development of communication skills [10]. The question arises, how is this to be solved? Some considerations would be to develop new teaching methods that aim at improving language proficiency. Creating fundamentally new educational materials that could be used to teach people how to communicate effectively. At the same time, of course, it would be wrong to rush from one extreme to another and give up all the old techniques of teaching. Careful selection of the best, most useful, authenticated teaching practice, would be especially necessary for the purposes of specific professional situations.

In this connection, it would take radically changing the view of how to teach a foreign language by taking into account more attention and emphasis on linguistics and intercultural communication. The solution to this opportunity is a pragmatic one. One condition would be to create a fairly strong fundamental research base.

Its creation is necessary for the following reasons: 1) apply the results of theoretical work on philology to the practice of teaching foreign languages; 2) theoretically comprehend and summarize the extensive practical experience of teachers of foreign languages. Modern close cultural communication has returned foreign language teaching methodology to normal. Currently, teachers strive to teach students with little use of the existing linguistic material in stock. At present, the basis of higher education teaching of a foreign language is perceived as a means of everyday communication with other cultures. The aim of higher education – is the formation of a highly educated individual who has in their arsenal of fundamental training, not only a unique specialization, but in broader terms, inclusion of a foreign language. This does not need to be specific to any one profession.

IE technicians must not only possess technical English or another foreign language, but must also be able to use it with similar specialists who may speak other foreign languages. Today, from the higher education perspective, teaching a foreign language is perceived as a means of everyday communication with other cultures. For this communication to occur, one needs to know or be familiar with the culture, its foundations and features. No longer is the Earth as big as it may have seemed 100 years ago!

In today's world unexplored places and unknown peoples are a thing of the past. With the help of modern technology, we are able to not only leave the house and go to the other side of the world (TV), but to also communicate with colleagues and/or to decide questions of business at the other end of the globe (VEB camera and Internet) without ever leaving the comfort of our office and/or home.

The problem of cross-cultural communication is becoming so acute and so pressing as is the need of cultural studies in the process of teaching a foreign language. The internet is gaining more and more space in our country as is accessing other countries.

Learning a foreign language is an excellent way of acquainting oneself with the culture of other people, and fostering respect and love. The main components include the following elements of a foreign culture and are attributed to bearing the national – specific color – of traditions and rituals, also known as tradition; – consumer culture; – everyday behavior; – national perspective of the world; – art and culture, including ethnography and ethnology.

### DISCUSSION AND APPLICATION

Teaching Business English at the Faculty of Business at the State University of Law, in reference to the above, has its own characteristics and application purposes. For example, preparing managers, leaders and organizers of business, who in addition to specific professional knowledge, should also have a common culture, be an enlightened individual, tolerant and therefore, possess a wide range of knowledge of the cultural peculiarities of different peoples. Since language and culture are interrelated, it is impossible to teach the language in isolation from the culture of the country. Language most accurately and vividly illustrates the mentality of the people, especially its culture. There are several ways of simultaneous teaching a language and its culture. Below, the authors share a framework of achieving this goal.

1. **Role plays.** Using role plays is very popular in our time. It is a procedure by which students play scenes on a specific topic by entering into the situation of other nationalities and try to keep the peculiarities of its culture and language. This is a form of theatrical performance and demands the language of the actors, the maximum penetration into the role, and thus serious training, research materials in the books and in the media. The potential for our students is unlimited: excellent specialized bookstores, movies, TV shows, "talk shows", the Internet, personal contact with native speakers of a particular culture and language (in clubs, bars, student gatherings, and so forth). We have successfully used role-playing games in the classroom dedicated to peculiarities of negotiations conducted in different countries, the role of the manager in their organization, centralization and decentralization of large corporations, as well as for strategic planning in large and small firms.

2. **Preparation of the individual.** With this, the individual shares information containing interesting facts on the subject of the lesson. For example, higher education in one of the countries in Europe or in Japan, features cuisine of Europe and Asia, the

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peculiarities of negotiations conducted in the various countries, etc., in accordance with the current lesson theme. Students choose the country and prepare a ten-minute overview of the topic. The rest of the group carefully takes notes on the performance in order to prepare for a reasonable discussion afterwards. At the end of the class, students are developing, for example, the ideal system of higher education in our country, based on the experiences and achievements of other countries. The work of each student is evaluated separately.

3. **Group messages.** With this, the group conducts conversations in which the cultural characteristics of different countries in specific areas of life (according to the theme of the lesson) are compared and analyzed. Two, three or four (but no more) students prepare at home a group discussion for example, about the peculiarities of the national cuisine of the assigned country. The information must be correct, interesting, and colorfully presented at a professional level. Students use a variety of visual media, a computer that shows videos, pictures, elements of folklore. They are welcome to use classroom posters, objects of folk costumes and even a description of unusual recipes of national dishes.

4. **Colorful presentations on a topic.** Most business communication is currently taking place in a variety of presentations. Our goal – to teach students to correctly and efficiently use this kind of work. Any public performance (response to the occupation of a site or at the blackboard, a toast at the table, an anecdote in a circle of friends, and so on.) – This is achieved by a small theatrical performance which has its own rules and specific objectives. Some instances may be common to all, but all should have some of the features of the different countries and cultures. Factors may include; body language, rate of speech, ways to attract and retain the attention of the audience.

5. **Home Reading.** This is a special kind of homework. Students get a job for a month, after which during one of the sessions they are to discuss management features described in a book (such as in the novels of Arthur Hailey's "Hotel" and "Airport", or in the novels of Mr. Grisham's "Company" and "Broker"). During the discussion, the teacher focuses on the specific features of the characters, describing them as representatives of a certain culture, a certain mentality, characteristic of the time described in the novel. Students discuss management issues in comparison with their own time and their own country. This method helps students to work actively in replenishing their vocabulary and learn new realities and characteristic of the country they are studying.

6. **Games.** A fun activity implemented as "Orientation of tourists before traveling to a particular country." Each individual student receives topics distributed by the instructor. During class the "instructor" talks about their chosen country and responds to questions from the audience.

## CONCLUSION

The study and understanding of other cultures, notwithstanding our own Uzbek culture is something to be valued. Each culture is unique, profound and beautiful alongside our great Uzbek culture. The beauty of the world – is in its variety and diversity of both nature and people with their cultural past, present and future. Admiring the cultures of other nations, we are able to proudly recognize the place of Uzbek culture, which we hold near and dear. Sharing this feeling with our students, fostering in them a deep love for their country and a great respect for other nations and people will not only serve Uzbekistan, but will contribute to a peaceful cohabitation of all nations.

## REFERENCES

- 1) Arkhipkina, G.D. (2003). The use of new information technologies as a factor improving the quality of the process of learning foreign languages. The quality management system of education at the Rostov State University. (p.146).
- 2) Gudykunst, W. & Kim, Y. Y. (2003). Communicating with Strangers: An Approach to Intercultural Communication, 4th ed. New York: McGraw Hill.
- 3) Morgan Carol, Byram Michael. 1994. Teaching and Learning Language and Culture. Culture in Language Learning.
- 4) Kincaid, D. L. (1988). The Convergence Theory of Intercultural Communication. In Y. Y. Kim & W. B. Gudykunst (Eds.), Theories in Intercultural Communication (pp. 280–298). Newbury Park, CA: Sage.
- 5) Rostov Don. 5. Passov, E.I. (1987). Fundamentals of teaching foreign languages. (p.214). Moscow: «Russian language».
- 6) Pedagogy / Edited by. Yu. K. Babansky. (1983) Moscow.
- 7) Gracheva, A.P. (2004). Innovative activity of the teacher. Pedagogical sciences, M., №6. 8. (n.d.). Retrieved from [www.teachingenglish.org.uk](http://www.teachingenglish.org.uk).
- 8) Salakhova, E. Z., & Shamsitdinova, M. G. (2020). ADVANCED PEDOGOGICAL TECHNOLOGIES IN EDUCATION IN THE 21-ST CENTURY. *Theoretical & Applied Science*, (5), 743-746.
- 9) Axmedovna, J. N., Gapporovna, S. M., Rozmatovna, A. O., & Tashkent, U. Z. (2019). The importance of needs analysis in teaching ESP. *European Journal of Research and Reflection in Educational Sciences Vol*, 7(11).

## Intercultural Communication and Difficulties of Teaching English in ESP Classes

- 10) Khashimova, D. U., & Shamsitdinova, M. G. (2022). On the Issue of Overcoming Ethnocultural Barriers in the Study of Foreign Languages by Students of Linguistic and Non-linguistic Universities of the Republic of Uzbekistan. *International Journal of Early Childhood Special Education*, 14(1).



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## The Influence of Tax Rates, Tax Payment Mechanisms, Tax Knowledge, Service Quality, And Taxpayer Awareness of Taxpayer Compliance with Religiosity as Intervening Variables



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**ABSTRACT:** Taxes is one of the state revenue sources. MSMEs have a large share of state revenue because they pay taxes in the form of obedience to the government. Compliance in paying taxes can be affected by tax rates, payment mechanisms, tax knowledge, service quality, taxpayer awareness, and religiosity. The sample in this study was 112 MSMEs in Banyumas Regency taken with convenience sampling techniques. The hypothesis is tested using linear regression tests and intervening regression tests. The results of this study concluded that tax rates, tax payment mechanisms, and service quality partially did not affect taxpayer compliance. Taxpayer awareness partially affects taxpayer compliance. Tax knowledge through religiosity influences taxpayer compliance, indirectly.

**KEYWORDS:** Taxpayer compliance, tax rates, tax payment mechanisms, tax knowledge, service quality, taxpayer awareness, and religiosity.

### 1. INTRODUCTION

The contribution of micro, small, and medium enterprises (MSMEs) to the national gross domestic product (GDP) in 2018 reached 6 0.34%. According to the Chairman of the Indonesian Micro small and medium enterprises Association (Akumindo) Ingratubun, the contribution of the MSME sector to the national gross domestic product is projected to grow 5% throughout 2019 to 65% or around Rp2,394.5 trillion (Ingratubun, 2019).

The contribution also shows that MSMEs have a large share of state revenues taken from taxes. MSME tax is expected to increase, even more. The expectation is supported by the decrease in the tax rate of MSMEs with the issuance of PP Number 23 in 2018. It is regulated that the tax for MSMEs amounted to 0.5% of gross circulation (turnover). Such lower tax rates can increase the compliance of taxpayers' to pay taxes. The results of Deyganto's research and Tilahun's research also showed that perceptions of tax rates affect taxpayer compliance (Deyganto, 2018). However, Wulandari's research found evidence that tax rates do not affect taxpayer compliance (Wulandari, 2018).

Easier tax payment mechanisms can also improve the taxpayer's compliance to pay taxes. The taxpayer can pay their taxes online now which is easier, can be accessed anywhere and anytime. By the availability of online service to pay taxes, it reduces the amount of time to pay taxes compared to the previous method in which people have to pay them manually. According to Deyganto's research, the easiness of paying taxes affects taxpayer compliance (Deyganto, 2018). In addition, the quality of the service can also affect taxpayer compliance. When the taxpayer received good service, the taxpayers will feel satisfied and will be more obedient in paying taxes. This is supported by the results of Yulianti's research which concluded that fiscus services affect the taxpayer compliance level. Even though, Marconi's research concluded that fissure services do not affect taxpayer compliance (Yulianti, 2007).

Socialization conducted by various parties can increase taxpayer knowledge about taxation. Knowledge of taxation is very important because taxpayers should know how to calculate the tax correctly, payment methods, fines, and others, to reduce errors in paying taxpayers' obligations which will affect their compliance in paying taxes. This is supported by Asrinanda and Diantimala's research which showed that tax knowledge affects taxpayer compliance (Asrinanda, 2018). In addition, taxpayer awareness also affects the taxpayers' compliance in paying taxes. When taxpayers realize the importance of paying taxes, then the taxpayer will be happy to pay taxes on time. Research that states the same thing is conducted by Asrinanda and Diantimala (Asrinanda, 2018). However, Azmi's research found that tax knowledge did not affect taxpayer reporting compliance (Azmi, 2019).

# The Influence of Tax Rates, Tax Payment Mechanisms, Tax Knowledge, Service Quality, And Taxpayer Awareness of Taxpayer Compliance with Religiosity as Intervening Variables

In Islam, religiosity is not only in ritual worship but also in their daily activities. Ernawati, et al stated that knowledge of taxes and ownership of NPWP through religiosity has a significant influence on the tax returns of private people indirectly (Ernawati et al., 2019). Taxpayer compliance in paying taxes will maximize tax revenue. More and more taxes can be used to improve development and service to the community.

## 2. LITERATURE REVIEW

### Attribution theory

According to Fritz Heider, the originator of attribution theory, stating that attribution theory is a theory that explains a person's behavior. Attribution theory describes the process by which people determine the causes and motives of a person's behavior. This theory refers to how a person explains the causes of someone's behavior which will be determined whether from internal aspects such as traits, characters, attitudes, or external aspects such as pressure from certain situations or circumstances that will influence individual behavior (Ivancevich et al., 1990).

The correlation between attribution theory and this research is that a taxpayer's compliance in paying taxes can be influenced by internal and external factors. Internal factors are factors that come from within the taxpayer and while external factors are factors that come from outside such as the environment, forcing regulations, and others.

According to Waluyo, this interest theory pays attention to the tax burden that must be collected from the community (Waluyo, 2000). This burden must be based on everyone's interests in the government's duties, including the protection of life and property. Therefore, the state's expenditure to protect it is borne by the people.

### Understanding Taxes

According to Mulyono, many legal experts and economists have defined tax including Rochmat Soemitro who stated that "Taxes are people's contribution to state treasury based on the laws (which can be imposed) by not getting direct counter-service (counter presentation) that can be shown, and which is used to pay general expenditures" (Muljono, 2010).

While the meaning of tax according to Law no. 28 of 2007 is "Mandatory contributions to the state owed by individuals or entities that are coercive in nature based on the law, without getting direct compensation and are used for the needs of the State for the greatest prosperity of the people". According to Bohari, tax is a contribution to the state (which can be imposed) owed by those who are obliged to pay it according to regulations) without getting a return that can be directly appointed and whose purpose is to finance general expenses related to the state's duty to run the government (Bohari, 2010).

### Asa's Tax Collection

To be able to achieve the objectives of tax collection, several experts have argued about the principle of tax collection. Quoting Smith's opinion in Waluyo (2014) the principle of tax collection is as follows:

- a) The principle of equality (the principle of balance with the ability or the principle of justice): tax collection carried out by the state must be in accordance with the ability and income of the taxpayer. The state should not discriminate against taxpayers.
- b) Certainty principle (principle of legal certainty): all tax collections must be based on the law which means those who violate will be subject to legal sanctions.
- c) The principle of Convenience of Payment (the principle of timely tax collection or the principle of pleasure): taxes must be collected at the right time for the taxpayer (the best time), for example when the taxpayer has just received his income or when the taxpayer receives a gift.
- d) Efficiency principle (efficiency principle or economic principle): the cost of tax collection is attempted to be as economical as possible, lest the tax collection cost is greater than the tax collection result.

### Tax Rate

The tax rate according to Sri, is a certain number that is used as the basis for calculating taxes (Sri, 2013). According to Tjahjono and Husein, the tax rate is a number or percentage used to calculate the amount of the payable taxes (Tjahjono & Husein, 2005). Meanwhile, according to Waluyo (2014), the tax rate is the rate for calculating the amount of the payable taxes.

MSME tax rate regulated by Government Regulation No. 23 of 2018 is an update of Government Regulation No. 46 of 2013. In PP No. 23 of 2018. The tax rate imposed on MSMEs is 0.5% of gross turnover (turnover). While in PP No. 46 of 2013 the tax rate for MSMEs is 1% of gross turnover. With the decrease in tax rates, it is expected that taxpayer compliance to pay taxes will increase.

Tariff is a basic guideline in determining the amount of tax debt of individuals and entities, other than as a means of justice in determining tax debt. To determine the percentage of the tariff, government policy plays an important role. Based on

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the tax percentage pattern, tax rates are divided into four types, including proportional tax rates, fixed tax rates, degressive tax rates, and progressive tax rates (Damayanti, 2010).

Meanwhile, according to Sri, the tax rate is defined as a certain number that is used as the basis for calculating taxes. Thus it can be understood that the tax rate is a percentage to calculate the amount of the payable taxes (Sri, 2013).

### **Tax Payment Mechanism**

According to Yusro, a good tax payment mechanism will increase taxpayer compliance in paying taxes (Yusro, 2014). The Directorate General of Taxes has provided a site that can be accessed by the public to facilitate payment methods and tax reporting, including e-banking, e-SPT, and e-filing. The update in online-based tax services will make it easier for taxpayers to pay their taxes and thus, taxpayer compliance will increase.

The mechanism of tax regulation related to PP No. 23 of 2018 is the Regulation of the Minister of Finance No. 107 of 2013 on Procedures for The Regulation, Depositing, and Reporting of Income Tax on Income from businesses or obtained by taxpayers who have a gross turnover exceeding Rp 4.8 billion in 1 tax year.

The Directorate General (Director General) of Taxes as the tax collector has made a lot of progress. However, based on the public view, taxes still cause some complexities, such as the management of taxpayer principal numbers (NPWP), filling out tax returns, and long queues for reporting taxes. The efforts of the Director-General of Taxes to provide An Account *Representative* (AR) for every taxpayer, can overcome the complexity for people who want to pay taxes. It is because people are still confused with the tax stuffing calculation system (Yusro, 2014).

### **Knowledge of Taxation**

According to the Indonesian Dictionary (2008), knowledge means everything that is known; Cleverness: or everything about things (subjects). In general, knowledge is associated with everything related to the learning process.

Taxes or Dharibah, *daraba*= debt, land tax or tributes, and others that must be paid, something charged. Obligations assigned to the taxpayer shall be deposited to the State under the provisions, without getting any achievements or direct rewards from the State. Tax or Dharibah is something that is required by the State on people's assets or their principal/capital. Therefore, taxes or dharibah are mandatory contributions to the state based on the law to finance state expenditures and as a tool to regulate welfare and the economy (Aziz, 1996). This regulation is also mentioned in the verses of the Quran in QS. Al Baqarah verse 188:

" And do not consume one another's wealth unjustly or send it [in bribery] to the rulers in order that [they might aid] you [to] consume a portion of the wealth of the people in sin, while you know [it is unlawful].

### **Understanding Taxpayer Awareness**

Taxpayers according to Law No. 16 of 2009 concerning General Provisions and Tax Procedures "are a person or entity, including taxpayers, tax-cutters, tax collectors who have tax rights and obligations in accordance with the provisions of tax laws."

Taxpayers are individuals or entities, including tax payments, tax deductions, and tax collections, who have tax rights and obligations in accordance with the provisions of tax laws and regulations. Individual taxpayers for certain entrepreneurs are taxpayers who carry out business activities in the wholesale or retail trade of consumer goods through business premises/outlets spread over several locations, excluding motor vehicle trade and restaurants (Mardiasmo, 2011).

Reporting and paying tax obligations in Indonesia is using a self-assessment system. In a self-assessment system, taxpayers are entrusted with registering, calculating, paying, and reporting their tax obligations which makes taxpayer awareness the key to successful tax collection (Mahfud & Abdullah, 2017). According to Huczynski, tax awareness is defined as a behavior that shows an attitude to comply with tax obligations personally and corporately (Buchanan & Huczynski, 2019).

According to Rahman, Taxpayer awareness is a condition when the taxpayer is not coerced by any party to pay his/her taxes under applicable regulations (Rahman, 2013). Taxpayers who understand tax regulations, implement tax provisions correctly and are voluntary. Taxpayers who are aware of their taxes will not violate the applicable tax regulations, they will also calculate their taxes correctly, and will pay the taxes owed. Tax awareness is a state of knowing or understanding about taxes. A positive assessment of taxpayers on the implementation of state functions by the government will move people to comply with their obligations to pay taxes, therefore Taxpayer Awareness is necessary to improve taxpayer compliance (Jatmiko, 2006).

Taxpayer awareness is the ability to understand that taxes are the largest source of state revenue, trying to understand the laws and sanctions in tax regulations, being aware that paying taxes is an obligation, the perception of taxpayers about the implementation of PPh fines (Munari, 2005).

The awareness of taxpayers in paying taxes will also increase if there is a positive perception in society about taxes. Characteristics of taxpayers based on cultural, social, and economic conditions will dominantly shape taxpayer behavior which is

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reflected in their level of awareness in paying taxes. Tax counseling that is carried out intensively and continuously will be able to increase taxpayers' understanding of the obligation to pay taxes (Ihsan, 2013).

### **Taxpayer Awareness Indicator**

Indicators of Taxpayer Awareness according to Ekawati are:

- 1) Be aware of the tax laws and regulations. By being more aware of the prevailing legislation, individual taxpayers will be more aware of paying taxes.
- 2) Knowing the tax function for state financing. The tax function in financing can be implemented in various facilities made by the government such as public facilities, schools, roads, and parks for national development. In addition, taxes are also used for education, health services, and payment of the state employees' salaries. The higher the tax fee collected, the more optimal and effective tax financing will be.
- 3) Understand that tax obligations must be carried out under applicable regulations. In carrying out taxation, individual taxpayers are based on applicable provisions, including the general taxation law, Government Regulation of the Republic of Indonesia No. 36 of 2017 concerning the imposition of income tax.
- 4) Understand the tax function for state financing. By understanding the tax function, individual taxpayers will be more aware to be more obedient in paying taxes (Ekawati & Radianto, 2008).

In the Indonesian dictionary, obedience means submission or obedience to teachings or rules. Compliance is the motivation of a person, group or organization to act according to the established rules. Tax compliance is a person's compliance, in this case, the taxpayer, to tax regulations or laws (Tiraada, 2013).

According to Soerono, taxpayer compliance is a taxpayer who is determined by the Directorate General of Taxes as a taxpayer who meets certain criteria who can be given a preliminary refund of tax overpayments (Utami & Soerono, 2012).

Loebbecke, suggests taxpayer compliance as a level where a taxpayer fulfills tax regulations in his/her country. Based on the Regulation of the Minister of Finance of the Republic of Indonesia No. 74/PMK.03/2012 concerning procedures for determining taxpayers with certain criteria in the framework of the preliminary refund of tax overpayments of Chapter II article 2, obedient taxpayers are those who meet four criteria: (1) on time in submitting notification letters for all types of taxes, (2) have no tax arrears, except for tax arrears that have obtained permission to install or defer tax payments, (3) the financial statements are audited by a public accountant or government financial supervisory agency with an unqualified opinion for 3 (three) years successively, and (4) have never been convicted of a crime in the field of taxation based on a court decision that has permanent legal force within the last 5 (five) years (Arens & Loebbecke, 1996).

According to Camp, the climate of compliance and awareness of the fulfillment of tax obligations is reflected in situations where: (1) Taxpayers understand or strive to understand all provisions of tax laws and regulations; (2) Fill out a complete and clear tax form; (3) Calculate the amount of taxes owed correctly; (4) Pay the taxes owed in time (Camp, 2009).

The criteria of taxpayers complying according to the Decree of the Minister of Finance No.544 / KMK.04 / 2000, that the criteria of Compliance of Private Taxpayers are:

1. Timely in delivering tax arrears for all types of taxes in the last 2 years.
2. Never been convicted of a criminal offense in the field of taxation in the last 10 years.
3. Have no tax arrears for any type of tax, unless they have obtained permission to adjourn or delay the payment of taxes.
4. Taxpayers whose financial statements for the last two years are audited by public accountants with reasonable opinions without exception, or opinions with exceptions to the full degree that they do not affect fiscal profit and loss.
5. The last two years have been bookkeeping and in the case of the taxpayer, corrections to the last check for each type of tax owed at most 5%.

### **Taxpayer Compliance Indicators**

According to Mukhlis, taxpayer compliance indicators can be seen from: (1) The timeliness aspect is the percentage of SPT reporting submitted on time in accordance with applicable regulations; (2) The income aspect of the taxpayer is the willingness to pay the Income Tax (PPH) installment obligations following the applicable provisions; (3) Aspects of law enforcement (imposition of sanctions) are the payment of tax arrears determined based on the Tax Assessment Letter (SKP) before maturity (Simanjuntak & Mukhlis, 2012).

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## 3. METHODS

This research is a quantitative approach with the main location in Banyumas Regency. Based on the data from the Department of Manpower and Cooperatives of SMEs in Banyumas Regency, the number of SMEs in Banyumas Regency is 68,371 units consisting of 65,741 units of micro-enterprises (96.15%), 2,602 units of small businesses (3.81%), and 28 units of medium-sized businesses (0.04). Samples were taken using stratified random sampling. The sample size is taken using the Slovin formula as follows:

$$s = \frac{N}{1 + N e^2}$$

$$S = 68.371$$

$$1 + (68.371)0.1^2$$

$$= 99,85 \text{ rounded to } 100$$

The minimum sample used in the study is 100 respondents. The sampling technique used in this study is using a convenience sampling technique. According to Sekaran (2006), the notion of convenience sampling is a collection of information from population members who agree to provide the information. Therefore, anyone who agrees to provide the required information with the researcher, either meeting directly or indirectly, can be used as a sample in this study.

## 4. RESULTS

The study used 112 taxpayers as a sample. The description of the respondent can be seen in the following table:

Table 4.1

Gender		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Man	61	54.5	54.5	54.5
	Woman	51	45.5	45.5	100.0
	Total	112	100.0	100.0	

Source: processed data

Based on the above table, the majority of respondents are men as much as 54.5% or 61 people. While the female respondents were 51 people or 45.5%. This shows that the majority of MSME actors in Banyumas Regency are male.

Table 4.2

The total net worth of the business excluding land and buildings

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	> Rp. 50,000,000 to Rp. 500,000,000 (Small Business)	26	23.2	23.2	23.2
	> Rp. 500,000,000 to Rp. 10 billion (Medium Enterprises)	3	2.7	2.7	25.9
	less than equal to Rp. 50,000,000(micro-business)	83	74.1	74.1	100.0
	Total	112	100.0	100.0	

Source: processed data

It can be seen from the table above that the majority of respondents have MSME business as many as 83 people or 74.1%. Respondents in the small business category were 26 people or 23.2% and the least respondents were from the medium business category as many as 3 people or 2.7%. This is because the majority of MSMEs in Banyumas Regency is included in the micro-enterprise category so that the respondents of this study have spread and represent MSMEs in Banyumas Regency.

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**Table 4.3. The respondents have various lengths of business**

Long Effort	Sum	Percentage
≤ 5 years	81	72,3%
6 - 10 years	21	18,75%
> 10 years	10	8,95%

Source: processed data

The table above shows that the respondents have various lengths of business and the majority have run their business for less than 5 years as many as 81 people or 72.3%. Respondents with a length of business from 6 to 10 years were 21 people or 18.75% and those who were more than 10 years were 10 people or 8.95%.

### Testing validity and reliability

The validity of this research instrument can be seen from the significance value. If the significance value is less than 0.05 then the question item is said to be valid, if the significance value is more than 0.05 then the question item is invalid. The significant value of each question item can be seen in Table 4.4.

**Table 4.4 Validity Test Results**

Question item	Significant Value	Information
Y_1	0.000	Valid
Y_2	0.000	Valid
Y_3	0.000	Valid
Y_4	0.000	Valid
TP_1	0.000	Valid
TP_2	0.000	Valid
TP_3	0.000	Valid
TP_4	0.000	Valid
TP_5	0.000	Valid
TP_6	0.000	Valid
MPP_1	0.000	Valid
PP_1	0.000	Valid
PP_2	0.000	Valid
PP_3	0.000	Valid
PP_4	0.000	Valid
PP_5	0.000	Valid
PP_6	0.000	Valid
PP_7	0.000	Valid
PP_8	0.000	Valid
KP_1	0.000	Valid

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KP_2	0.000	Valid
KP_3	0.000	Valid
KP_4	0.000	Valid
KP_5	0.000	Valid
KP_6	0.000	Valid
KP_7	0.000	Valid
KWP_1	0.000	Valid
KWP_2	0.000	Valid
KWP_3	0.000	Valid
KWP_4	0.000	Valid
R_1	0.000	Valid
R_2	0.000	Valid
R_3	0.000	Valid
R_4	0.000	Valid
R_5	0.000	Valid

Source: data processed

Based on Table 4.4, it is seen that all question items can be said to be valid because all items have a significant value less than 0.05.

The reliability of the measuring instrument is the level of stability of the measurement results of a symptom. The higher the reliability, the higher the stability of the measurement results. The criteria for testing the reliability test can use the criteria table for the reliability coefficient index (Suharsimi, 2006):

No.	Interval	Criterion
1	<0.200	Very weak
2	0,200 – 0,399	Low
3	0,400 – 0,599	Enough
4	0,600 – 0,799	Tall
5	0,800 – 1,000	Very high

Based on the results of the research, the reliability coefficient can be seen in Table 4.5:

**Table 4.5 Reliability Test Results**

Variable	<i>Cronbach Alpha</i>	Information
Tax rates	0,560	Enough
Tax payment mechanism	0,828	Very High
Tax knowledge	0.897	Very High
Quality of service	0,927	Very High
Taxpayer awareness	0,790	Tall
Religiosity	0,829	Very High
Taxpayer compliance	0,797	Tall

Source: data processed

Based on Table 4.5 all variables have a *Cronbach Alpha* value greater than 0.400 so it can be concluded that the questionnaire can be said to be reliable.

**Testing Classic Assumptions**

**Normality Test**

To use unstandardized residual data with regression analysis tools, the data need to be normally distributed. For this reason, a normality test was carried out using one-sample Kolmogorov Smirnov.

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**Table 4.6 Normality Test Results**

**One-Sample Kolmogorov-Smirnov Test**

			Unstandardized Residual
N			112
Normal Parameters <sup>a</sup>	Mean		.0000000
	Std. deviation		1.68792394
Most Extreme Differences	Absolute		.109
	Positive		.082
	Negative		-.109
Kolmogorov-Smirnov Z			1.149
Asymp. Sig. (2-tailed)			.143

a. Test distribution is Normal.

Source: Appendix 6

By looking at the asymptotic sig. in Table 4.6 of 0.143, it can be concluded that the unstandardized residual data has been normally distributed because the asymptotic significant value is more than 0.05 (Ghozali, 2011).

### Multicollinearity Test

Guidelines for a regression model that is free of multicollinearity have a VIF value below 10 and have a *tolerance* rate greater than 0.05. The results of the multicollinearity test of this study can be seen in Table 4.7:

**Table 4.7 Multicollinearity Test Results**

**Coefficients<sup>a</sup>**

Type	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	6.263	1.256		4.985	.000		
Tax Rate	.029	.051	.044	.577	.565	.744	1.344
Tax Payment Mechanism	-.002	.053	-.003	-.032	.975	.400	2.499
Knowledge of The Virgin	.034	.050	.075	.684	.496	.356	2.811
Quality of Service	-.042	.048	-.092	-.865	.389	.385	2.596
Taxpayer Awareness	.119	.069	.155	1.737	.085	.542	1.846
Religiosity	.391	.051	.643	7.734	.000	.624	1.603

a. Dependent Variable: Mandatory Compliance Pajak. Source: Appendix 6

Based on Table 4.7, the VIF value of all variables is less than 10, which means that the regression model is free from multicollinearity.

### Heteroscedasticity Test

Heteroscedasticity test aims to test whether in the regression model there is an inequality of variance from the residual of one observation to another observation. Heteroscedasticity test was carried out with the glejser test, the results of the glejser test can be seen as follows:

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Table 4.8 Heteroskedastisita Test Results

**Coefficients<sup>a</sup>**

Type	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.005	.778		2.576	.011
Tax Rate	.037	.032	.128	1.182	.240
Tax Payment Mechanism	.017	.033	.075	.508	.612
Tax Knowledge	-.053	.031	-.266	-1.695	.093
Quality of Service	.043	.030	.218	1.443	.152
Taxpayer Awareness	-.035	.042	-.105	-.827	.410
Religiosity	-.044	.031	-.167	-1.408	.162

a. Dependent Variable: abs\_res

Source: Appendix 6

Based on the results of the *glejser* test, the significant value of all variables is more than 0.05. Therefore, it can be concluded that the regression model is free from heteroskedasticity.

## 5. DISCUSSION

Tax rates do not affect taxpayer compliance, because regardless of the tariff that the government sets, respondents realize that it is the best rate. They believe that the government will not be careless in setting tax rates, this is in line with the opinion of Damayanti (2010) which states that to determine the percentage of the tariff, the government policy plays an important role (Damayanti, 2010). This research was carried out during the Covid 19 pandemic. As we all know that during this pandemic, many businesses went out of business, but the respondents' efforts were still able to survive. The respondents also still paying taxes to help the government. Thus, the tax rate has no effect on taxpayer compliance.

The MSME tax rate regulated by Government Regulation No. 23 of 2018 is an update of Government Regulation No. 46 of 2013. In PP No. 23 of 2018, the tax rate imposed on MSMEs is 0.5% of gross turnover. While in PP No. 46 of 2013 the tax rate for MSMEs is 1% of gross turnover. With the decrease in tax rates, it is expected that taxpayer compliance to pay taxes will increase.

This research is not in line with Deyganto's research (Deyganto, 2018). The study concludes that the perception of tax rates is a key factor influencing the attitude of taxpayers' voluntary compliance with the taxation system in the study area. It is also not in line with Tilahun's research (Tilahun, 2018). The study concluded that the tax rate was found to be a determining factor affecting taxpayer voluntary compliance.

The tax payment mechanism does not affect taxpayer compliance, because the tax payment is still in a certain designated place which causes the delay of the payment of taxes. If the tax payment has collaborated with the banks and is available on the mobile banking veranda of all banks in Indonesia, it will make it easier and faster to pay taxes.

The Directorate General of Taxes as a tax-collecting institution has made a lot of progress, but based on the public's view, taxes still pose several complications, such as managing the taxpayer identification number (NPWP), filling out SPT, and long queues for reporting taxes. The efforts of the Directorate General of Taxes to provide an Account Representative (AR) for each taxpayer, can overcome the complexity of people who want to pay taxes because people are still confused with the tax entry calculation system (Yusro and Kiswanto, 2014). The next convenience that can be provided is the method and place of paying taxes. If the method and place of paying taxes are easier, it is hoped that taxpayers will be more obedient in paying taxes.

The result of this research does not support Deyganto's research (2018). The study concludes that the simplicity of the taxation system is a key factor influencing the attitude of taxpayers' voluntary compliance with the taxation system in the study area.

Service quality does not affect taxpayer compliance. The quality of online services may be further improved especially during the pandemic which limits the people's movement. Many people work from home, so it is necessary to improve the quality of online services. According to Law Number 16 of 2009 (KUP Law) Tax Officer Services are services provided to the public

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(taxpayers) by the Directorate General of Taxes (DGT) to assist the people in fulfilling their tax obligations. Therefore, tax officer services can also be done online to make it easier for the taxpayers.

Services in the tax sector include facilities and infrastructure as well as the reliability of the tax apparatus (Fiskus) at the KPP as a DGT implementing organizational unit that is related to the community (taxpayers) directly. They are in charge of conveying state revenues from the tax sector. Services in terms of taxation can also be interpreted as services provided by the Directorate General of Taxes to the taxpayers to assist taxpayers in fulfilling their tax obligations (Rahayu, 2010).

Taxpayer awareness affects taxpayer compliance. Taxpayers may be aware that one way to help the government to organize government and help the community is by paying taxes, so that awareness of paying taxes affects taxpayer compliance. Especially during a pandemic, where the government needs a lot of funds to handle. Hence, taxpayers can help the government by paying taxes, even though the taxes paid are not as much as in the pre-pandemic period, because the pandemic has reduced the turnover of many business actors, MSMEs are also not excluded.

Awareness of taxpayers in paying taxes will also increase when there is a positive perception of taxes within the society. Characteristics of taxpayers based on cultural, social, and economic conditions will dominantly shape taxpayer behavior which is reflected in their level of awareness in paying taxes. Tax counseling that is carried out intensively and continuously will be able to increase taxpayers' understanding of the obligation to pay taxes (Suryadi, 2006).

The result of this research supports the research by Asrinanda and Diantimala (2018), that tax awareness has a partial effect on taxpayer compliance. This research is also in line with Marcori's research (2018) that taxpayer awareness has a significant positive effect on taxpayer compliance and that fissure services were not proven to have any effect on taxpayer compliance.

Indirectly, tax knowledge through religiosity influences taxpayer compliance, because taxpayers' high religiosity will make taxpayers more obedient in paying taxes. It is because in religion, especially Islam, we are required to pay zakat, so the taxes we spend can be intended to pay zakat. Although it is possible that we still pay zakat in addition to paying taxes to reassure that our assets are cleaner. In other religions, there is also a recommendation to issue some of our property with different names. So that good tax knowledge supported by a high level of religiosity will make taxpayers more obedient in paying taxes.

According to Ernawati et al (2019), religiosity in Islam not only occurs when someone performs ritual worship but also in their everyday activities. In Adh-Dharyat verse 56, it is mentioned that " And I did not create the jinn and mankind except to worship Me". According to M. Quraish Shihab (2002), this verse has the intention that Allah ALMIGHTY affirms to all his people whether jinn or human to worship only to Allah alone, both physically and mentally. Therefore, religiosity in Islam does not only occur when someone performs ritual worship but also in their everyday activities.

This study supports the results of Asrinanda and Diantimala (2018) and Ernawati, et al (2019) research. This research concluded that tax knowledge, self-assessment systems, and tax awareness influence taxpayer compliance partially and simultaneously. This study also emphasizes that the knowledge about taxation and ownership of NPWP through religiosity has a significant influence indirectly on the compliance of individual taxpayers.

## **6. CONCLUSION**

The results of the study concluded that Tax rates do not affect taxpayer compliance, the mechanism of tax payment does not affect the compliance of the taxpayer, the quality of service does not affect taxpayer compliance, the Taxpayer awareness affects taxpayer compliance, and the tax knowledge through religiosity influences taxpayer compliance.

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## **REFERENCES**

- 1) Arens, A. A., & Loebbecke, J. K. (1996). *Integrated Approach Auditing*. Salemba Four.
- 2) Asrinanda, Y. D. (2018). The effect of tax knowledge, self assessment system, and tax awareness on taxpayer compliance. *International Journal of Academic Research in Business and Social Sciences*, 8(10), 539–550.
- 3) Azmi, M.N. (2019). The Effect of Tax Knowledge, Awareness Level, and Tax Sanctions on Compliance with Individual Taxpayers Conducting Business Activities and Free Work (Study in the Pontianak Pratama Kpp Area).
- 4) Bohari, H. (2010). *Introduction to Tax Law*.
- 5) Buchanan, D. A., & Huczynski, A. A. (2019). *Organizational behavior*. Pearson UK.
- 6) Camp, B. T. (2009). Theory and practice in tax administration. *Va. Tax Rev.*, 29, 227.
- 7) Damayanti, T. W. (2010). *Indonesian Taxation: Mechanisms and Calculations*.

## The Influence of Tax Rates, Tax Payment Mechanisms, Tax Knowledge, Service Quality, And Taxpayer Awareness of Taxpayer Compliance with Religiosity as Intervening Variables

- 8) Deyganto, K. O. (2018). Factors influencing taxpayers' voluntary compliance attitude with tax system: Evidence from Gedeo zone of Southern Ethiopia. *Universal Journal of Accounting and Finance*, 6(3), 92–107.
- 9) Ekawati, L., & Radianto, D. E. W. (2008). Survey on Understanding and Compliance of Small and Medium Business Taxpayers in Yogyakarta City. *Accredited Journal of Information Technology and Management*, 6, 185–190.
- 10) Ernawati, E., Yuniati, Y., & Rustandi, R. (2019). The Effect of Tax Knowledge and TIN Ownership on Individual Taxpayer Compliance Through Religiosity as an Intervening Variable. *MEA Scientific Journal (Management, Economics, & Accounting)*, 3(2 SE-Articles). <http://www.journal.stiemb.ac.id/index.php/mea/article/view/178>
- 11) Ihsan, M. (2013). The Effect of Taxpayer Knowledge, Tax Counseling, Tax Service Quality, and Tax Audit on Corporate Taxpayer Compliance in Padang City. *Journal of Accounting*, 1(3).
- 12) Ingratubun, I. (2019). The Contribution of MSMEs to GDP 2019 is Projected to Grow. *Bisnis.Com*. <https://economy.bisnis.com/read/20190109/12/876943/kontansi-umkm-terhadap-pdb-2019-dihasil-tumbuh-5>
- 13) Ivancevich, J. M., Matteson, M. T., & Konopaske, R. (1990). *Organizational behavior and management*.
- 14) Jatmiko, A. N. (2006). The effect of taxpayer attitudes on the implementation of fines, tax service services and tax awareness on taxpayer compliance (Empirical study of individual taxpayers in the city of Semarang). Diponegoro University Postgraduate Program.
- 15) Mahfud, M. A., & Abdullah, S. (2017). The Effect of Understanding Tax Regulations, Awareness of Paying Taxes and Quality of Tax Services on Corporate Taxpayer Compliance (Empirical Study on Cooperatives in Banda Aceh City). *Journal of Accounting Administration: Unsyiah Postgraduate Program*, 6(2).
- 16) Muljono, D. (2010). *Tax Law, Concepts, Applications, and Practical Guidance*. Yogyakarta: Andi Offset.
- 17) Rahman, A. (2013). *Tax Administration Implementation Guidelines: For Employees, Business Actors And Companies*. Commerce.
- 18) Simanjuntak, T. H., & Mukhlis, I. (2012). *The economic dimension of taxation in economic development*. Jakarta: Achieve Success.
- 19) Sri, V. & A. S. (2013). *Indonesian Taxation*. UPP AMP YKPN.
- 20) Suharsimi, A. (2006). *The research procedure is a practical approach*. Jakarta: Rineka Cipta, 120–123.
- 21) Tilahun, M. (2018). Economic and social factors of voluntary tax compliance: Evidence from Bahir Dar City. *International Journal of Accounting Research*, 6(2), 182–188.
- 22) Tiraada, T. A. M. (2013). Tax awareness, tax sanctions, the attitude of the tax authorities on WPOP compliance in South Minahasa Regency. *EMBA Journal: Journal of Economic Research, Management, Business And Accounting*, 1(3).
- 23) Tjahjono, A., & Husein, M. F. (2005). *Taxation*. Third Edition. Yogyakarta YKPN Company Academy.
- 24) Utami, S. R., & Soerono, A. N. (2012). The Influence of External Factors on the Level of Taxpayer Compliance in the Serang Pratama Tax Service Office. *Udayana University Accounting E-Journal*.
- 25) Waluyo. (2000). *Indonesian Taxation: Discussion in accordance with the Provisions for the Implementation of Taxation Laws*.
- 26) Wulandari, A. (2018). The Effect of Understanding of Tax Payment Mechanisms, Tax Rates, Tax Sanctions, and Tax Socialization on MSME Taxpayer Compliance (Empirical Study on MSME Taxpayers Registered at KPP Pratama Surakarta). IAIN Surakarta.
- 27) Yulianti, R. T. (2007). *Sharia Economic Disputes (Between the Competence of the Religious Courts and the Shariah Arbitration Board)*. Al-Mawarid, XVII Edition, 45–60.
- 28) Yusro, H. W. & K. (2014). The Effect of Tax Rates, Tax Payment Mechanisms and Awareness of Paying Taxes on MSME Taxpayer Compliance in Jepara Regency. *Accounting Analysis Journal*, 3(4), 429–436. <https://doi.org/10.15294/aaj.v3i4.4201>



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## Improving English Language Teaching in Sri Lankan Schools: Past Pupils' Contribution



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**ABSTRACT:** This paper presents the finding of a study that investigated the relationship between the contribution of alumni of schools towards the revival and promotion of English language teaching and the learning process in Sri Lankan schools. The main objective of this endeavour is to find out the impact of policies in obtaining the contributions of the past pupils. A non-experimental cross-sectional research design was used in gathering data. Primary and secondary data, focus group discussions and interviews were used to gather information from past pupils in three provinces in Sri Lanka i.e. Western, Uva and Central provinces. The instrument was tested with sixty –two past pupils of ten schools of 1AB and 1C status. The sample includes Government Schools, Semi-Government schools and Government approved Private schools. According to the focus group discussions that were carried out, the voluntary services of the past pupils is turned down or discouraged by certain administrators of schools citing clauses in circulars issued by the educational authorities. Hence this study on Improving English Language Teaching in Sri Lankan Schools: Past Pupils' Contribution is aimed in addressing the related concerns and suggesting practical guidelines to mitigate the issue. Obtaining the voluntary services of the past pupils professionally and amicably; revising the circulars to obtain a better service from the past pupils, and encouraging the past pupils' Associations to function independently while building up a better rapport with the administration of the school in addition to providing the School Principals with the necessary training to work with the past pupils are suggested as a part of recommendations in this paper. This paper serves a part of the initial purpose of the main research of which the Researcher is a team member.

**KEYWORDS:** contributions, English, Policies, relationship, stakeholders, training

### INTRODUCTION

The Colebrook Commissions' realization of the importance of imparting education with English, forty years after Sri Lanka became a colony of the British has continued to the present with the trends of globalization. The importance of continuation of the same is felt more than ever presently due to certain relaxations executed after the independence to gain political mileage of the majority by enabling children to have their education in their mother tongue. However, there is a drastic difference in the quality of the professionals who were directly affected by the above change and their predecessors. Thus, English Language skills is a well-sought requirement for higher education and employment, not only in Sri Lanka but all over the world today.

G.C.E.(A/L) and the G.C.E.(O/L) qualified students and over 18,000 Graduates have become unsuccessful in being selected to employment positions in Sri Lanka due to their lack of English language competency. This hinders the Socio-Economic development and Social Mobility at large in Sri Lanka. (Annual Report 2019, Unemployment rates).

The G.C.E. (O/L) English language results from 2008-2015 depict that the English Language is the least passed subject among all other core subjects, and the situation remains unchanged even in 2019. Even though certain schools claim of having 100% results at the General Certificate of Education Ordinary Level (G.C.E. O/L) English language, it does not indicate the competency level of the Speaking and Listening skill of the student. This brings the competency vs. performance to a questionable position as it is evident that fluency, appropriateness, accuracy in the use of the language are not effective.

Gunawardene and Karunaratne (2017) point out that although several implementations were made in recent years to remedy the issues pertaining to English language teaching and learning, achieving the expected objectives was a failure. Teachers of English being the most important stakeholders in English language teaching, their contribution to these failures are significant.

## **Improving English Language Teaching in Sri Lankan Schools: Past Pupils' Contribution**

Out of several reasons it is apparent that teachers' skills, professional knowledge, perceptions and pedagogic practice all contribute to the failure in ELT.

A two year research on the title Improving English in Schools as a Strategic Measure of Importance for Socio-Economic Development in Sri Lanka in fulfilment of a project under the Accelerating Higher Education Expansion and Development (AHEAD) of the Ministry of Education funded by the World Bank is being conducted with a view of recommending practical solutions to this vital issue by a team of professionals including the researcher who are in the field of education and English Language teaching. The researchers postulate that the participation of all stakeholders i.e. state, students, teachers, parents, past pupils and well wishes are important in the exercise of enhancing the standard of English language in Sri Lankan schools.

This paper strives to comprehend the impact of Educational Policies concerning the voluntary contributions of past pupils.

The formation of the School Development Societies (SDS) in 1982 under circular No 1981/2, School Development Board Act no 8 of 1993 and School Improvement Programme in 2013 are a clear indication of the Government's intention to seek support from the parents and the past pupils. Circular No 27 of 1964 by the Department of Education invites all Principals to set up Past Pupils' Association to support the academic and non-academic and infrastructure development.

Although conditions are stipulated in Act 5 of 1960, Act 8 of 1961 and amended Act no 65 of 1981 for all schools to get equal facilities and support from the Government, a remarkable disparity in the providence of funds to the National schools and Provincial schools is perceptible. In addition much has been discussed and read on the demands of the Federation of University Teachers' Association (FUTA) of 6% of Gross Domestic Product (GDP) for education for the last ten years

During the focus group discussions, the researcher learnt that the aforementioned two policies i.e. circular No 27 of 1964 and Circular No: 26/2018 have directly discouraged and distanced the past pupils who are important stakeholders in the Sri Lankan education system.

In 2019, responding to a Writ application by the Past Pupils' Association of vested schools, the appeal court of Sri Lanka has given a verdict against Circular No: 26/2018 of the Ministry of Education recommending to maximize the number of SDS Executive members who are parents educated in the same school.

### **BACKGROUND**

In 1833, the Colebrooke Commission observed that the English education was in a low ebb and with state patronage established the Colombo Academy to impart Education in English, and the revival of many schools in 1867 following the recommendations of the Morgan Committee was a turning point in the system of education in Sri Lanka.

However, presently there are 10,194 schools out of which 50% is with less than 200 students functioning in Sri Lanka. This includes 2750 schools taken over by the Government in 1961 under Act no 5 of 1960 assuring a more systematic education with national standards.

An in-depth study into the present status of these 2750 schools is required; the performance at the public examinations reveals that the standard of the English language of the majority of these institutions has reached a low ebb despite steps taken to improve the standards.

At present, competency in the English Language is an imperative requirement to face challenges of the present world, particularly when seeking employment positions and entering higher education.

As the global economy is booming, individuals strive to have vibrant lives, yet encounter challenges resulting from changes in their work environment. Government officials emphasize on international relations and import and export; businessmen either use IT or are required to travel abroad to extend their business territory and opportunities, and educators are demanded on possessing expertise knowledge and skills to meet their learners' diverse needs.

Many promising scholars of Government schools have become drop-outs and many a man has become unemployed due to the less proficiency of the English language skills in Sri Lanka.

The G.C.E. Advanced Level and Ordinary Level qualified students and a significant number of graduates have become unsuccessful in being selected for employment positions due to their lack of English language competency. This directly interferes with the socio-economic development in Sri Lanka and hinders social mobility at large. This is the subject of the main research under the topic Developing English in Schools as a Strategic Measure of Importance for Socio-Economic Development in Sri Lanka of the team where the researcher functions as the Director.

After the independence, although the role of education was to facilitate the students with relevant knowledge, skills, attitudes and mindset to play a role in the socio-economic development of the country. In reality, the country has to face youth unrest in 1971, 1983, 1988/89 and a three-decade-old civil war sacrificing many young lives whilst bringing down the Socio-

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economic status of the country down. According to the latest statistics, the unemployment rate of youth in Sri Lanka is increasing rapidly. The present Government is able to allocate only 2% of GDP for education despite the prolonged demands for 6% by teachers, educators and undergraduates. The Present Minister of Education calls upon better-performing schools to support rural schools.

### LITERATURE SURVEY

The principal focus of this literature review is to explore the possible contributions of alumni in enhancing the quality of education including English language.

Saravanathan (2012) revealed that according to HIES 2009/10, only 14.7% of the population passed the GCE O/L Examination and another 11.2% has passed the GCE A/L Examination or beyond, out of which little over 1% have an undergraduate degree or above. Hence, in total only 26% of the population had passed the GCE or beyond in the country. He further mentioned that the FUTA and IUSF may content that the foregoing pathetic results of our free education system are due to underfunding.

Although through the school take over under Act 5 of 1960 and Act 8 of 1961 all schools are liable to get equal facilities and support from the Government, the disparity in the providence of funds among the National schools and Provincial schools continues. According to the Central Bank report, from 1973 to 2015 the Government expenditure on education had been fluctuating between GDP 2.2% and 3.3%, and even though there is an increase in Government expenditure on Education from 2015 to 2016, there is a decline from 2016-2018 by 3.2%.

The formation of the School Development Societies in 1982 and the School Development Committee in 2013 are a clear indication of an attempt to seek direct support from the parents and the past pupils towards education in Sri Lanka.

This paper resents an analysis of the policies involving the past pupils who are potential stakeholders who would contribute voluntarily due to their regard and loyalty towards their Alma mater in all aspects including the uplifting the standard of English.

(Dolbert, 2002): Summarises 5 Is to achieve alumni engagement in a productive manner: Identity, Inform, Interest, Involve, and Invest for continual alumni engagement.

Saroj TIAG 2017 concludes that the reputation of an educational institution lies on its students Past and present. She shows that the Former students or alumni of an institution can play an immensely positive role in higher education transformation and it is vital for the institutions to have established open and direct communication channels with alumni and ensure that alumni representatives provide a strong support to the managing body of the institution. In addition to alumni donations, it can serve many other purposes such as – being or building institution's ambassadors, recruiting prospective students and mentoring current ones, providing assistance to students in career advancement; helping alumni to stay connected with each other and providing valuable feedback to the institution. She adds that the Alumni are truly a strong support to the institution. An active Alumni Association can contribute in academic matters, student support as well as mobilization of resources – both financial and non-financial. But to achieve this, firstly education in India must be detached from political influences and politicians.

Until 1956, the medium of education in mainstream schools in Sri Lanka was English and this was demoted from its status and given a subordinate position in the hierarchy of languages in Sri Lanka. The language policy in 1956 and the school take over by the state in 1961 have brought positive as well as negative changes in Sri Lankan Education System. Prof.G.T.Francis de Silva, 2010 mentions that three revisions that appear to have adverse effects, especially on education, employment opportunity and health care lowering the level of Education, Curtailing Missionary activities and take-over of schools to the Government control.

The school takeover has been discussed for the last 70 years. Former member of the Parliament Albert F.Peiris 1960 has stated during Parliament debate on the 27<sup>th</sup> Oct 1960 that buildings could be taken over, but the life in the institutions cannot be taken over...actually there is life in these institutions but not in the institutions administered by the state. There is protest by parents"

Former Prime Minister and Minister of Education W.Dahanayake voiced his displeasure of the school take over making the longest speech (8 hours) in the Sri Lankan Parliament in 1960. After 35 years of the school take over, in 1995 he (92 year old) added the following in the book published by St Aloysius' College, Galle " I learnt at St Aloysius' College, on the whole, devotion in my work and the pursuit of right, because right is right and it is wisdom to follow right ". Answering a question by an old boy he mentions "When the debate for the takeover of schools was held in Parliament, I was against a full takeover. I wanted those schools that were badly managed to be taken over, but I wanted the good schools to remain under the management of that time and so on, Indeed, St Aloysius College was not taken over" (SAC Hundred Years of Love and Service,1995, pp.101-102). St Aloysius College, Galle was one of the 50 schools that opted to remain private in 1960.

The Past pupils in Sri Lanka have contributed towards their Alma mater maintaining higher standards. Their involvement and commitment were mainly due to their loyalty and affection.

## Improving English Language Teaching in Sri Lankan Schools: Past Pupils' Contribution

The Old Thomians' Centenary publication by Gunaratne, (1985) gives a clear indication of the bond between the Past pupils and the College in the lines "In the history which has endured, the scope of the OBA is amply manifested. It is not a frail thread on which Old Boys annually resting their friendship. It is not for nothing that Warden Stone in his farewell to the OBA (1926) said characteristically in a brief speech: "Live for St.Thomas', do anything for her whenever you are asked to do it, if necessary die for her" it is a third of a century since those words were spoken, and the OBA has been one equal temper of heroic hearts.

That ever with a frolic welcome took

The thunder and the sunshine till this momentous period of our country's history. "

In 1886 the St.Thomas' College magazine has carried another testimony to show the sentimental thoughts of a past pupil who has enclosed the following lines in his letter to the editor "I am not ashamed to tell you that it was with a suppressed tear I left St.Thomas 'College on the 3<sup>rd</sup> of last July. J.G.C.Mendis.

In a letter to the researcher who has been the OBA secretary of St Xavier's College, Nuwara Eliya, A past pupil, Alegius G.Pillai from Canada (2010) ends his letter with the following lines "Some of us may not learnt much at school, and some may have fallen by the wayside, but of this I am sure that each one of us, who had the privilege of passing through the portals of St Xavier's College, is proud to be an Old Xaverian. I owe my life to my dear parents and second only to them, I owe a debt of gratitude to my beloved Alma Mater for what I am today"

S.S.Peshawur on the 7<sup>th</sup> Sept 1886 mentioned " that the objects of the Society be to increase the sense of fellowship in Old Boys with one another and with the College, to promote good works among them ,and to afford guidance and encouragement to the younger generation"

Answering to the question on Thomian apropos the Thomian spirit ,the Warden Stone has stated " I never despair about a Thomian even if he has gone wrong a year or two, Some of them have gone wrong, but I believe there is something in the College called the Thomian Spirit that can never die"

The financial contributions made by Past pupils is remarkable in Sri Lanka. Gunaratne N.H. 1985 states "Many schools in Ceylon have had to depend for their existence on money brought from abroad. St Thomas College has had very little foreign aid. The generosity shown by Old Boys to St Thomas dates from very early times long before the formation of the OBA.

Loyalty pledge of Royal College Colombo inspires past pupils to be connected with their alma mater in the following way: "I pledge with all my heart that, wherever I may be, I shall always remember with love and loyalty my alma mater, Royal College that taught, guided and moulded me to be what I am. I also pledge that now and in the future, both in word and deed, I shall keep her fame inviolate and strive to repay the immeasurable debt I owe to the school that nurtured me to man's estate"

This relationship and bond between the Past Pupils and their institutions in other countries may differ as the requirements and sentiments are different, but in Sri Lanka until their death past pupils live with their Alma mater.

"Wrap me up in my Trinity blazer

With Red, gold and blue in my view

And six stalwart fellows shall carry me

With steps at a-mournful and slow" is a popular song at Trinity College, Kandy that well depicts the affection and loyalty of past pupils towards their alma mater.

Following lines condensed from the constitution (1947) of the OBA of St Xavier's College that indicates the purpose and goals of the Association.

Article ii - Purpose & Goals

To uplift the standard of the College and maintain the traditions of St. Xavier's College Nuwara Eliya. (Hereinafter referred to as The College).

To promote and advance the economical general welfare of past pupils of the College.

To work for the integral development of the Association.

To foster comradeship and welfare among the past pupils of the College.

To keep the past pupils of St. Xavier's College in a purposeful relationship with their Alma Mater and thereby maintain within them and among them a spirit of loyalty to their Alma Mater.

To obtain the advice, support and cooperation of past students in all matters affecting the College.

To promote the advancement, progress and welfare of the College.

To promote advancing educational, cultural, recreational, social and economic welfare of the students of the College.

To enable those senior students of the College to acquaint themselves with members of the Association to engage in a spirit of friendship, which would help those younger members.

## Improving English Language Teaching in Sri Lankan Schools: Past Pupils' Contribution

It is an indisputable fact to mention that no school has come down because of the Past Pupils. Even in occasions where the Heads of the schools were transferred and terminated their services, the Past Pupils' Associations found alternatives to safeguard their Alma mater.

These Past Pupils Associations have been doing great service to their Alma Mater. Providing infrastructure facilities, setting up science laboratories, language labs, sports activities, Cricket and Rugby, providing scholarships and financial assistance to deserving students to enter National and International level in sports, teacher training, extra educational workshops, promoting music, drama and even the film industry are to name a few projects launched by the past pupils. One can argue that Hon.D.S.Senanayake wouldn't have become the first Prime Minister if not for the Past Pupils' Association of his Alma mater. Dudley Senanayake, and S.W.R.D.Bandaranayake, the 2<sup>nd</sup> and third Prime Ministers of Sri Lanka who were also active members of the same Association and have received the perseverance from the Past Pupils' association to enter public service.

Hundred years after the institution of the Past Pupils Association /Old Boys' Association in Sri Lanka by the Past Pupils themselves, the Government has rung a wakeup call in 1964 through a circular inviting all Principals to set up Past Pupils' Association to obtain the support of the past pupils for the functioning of schools. At present only a handful of Principals are able to set up Past Pupils Association indicating that the wake-up call is not listened to.

The old boys who voluntarily joined the focus group discussions from the provinces of Western, Central and Uva pointed out that the Heads of the schools should be trained to build up a better rapport with Past Pupils rather than creating distance between the past pupils and their school. The presence of mind of the Head of the school is vital in making decisions.

Setting up of Learning Management System (LMS) in a school in Colombo by the Past Pupils in 2018 is taken up as a positive move by teachers, parents and students as the system has served the purpose during the sudden Lockdown due to the Covid -19 in 2020. Answering to a question the former secretary of the OBA stated that at the inception the teachers took it as an extra burden, but when the schools were closed down, all the teachers were eager to learn and some teachers even have become successful in online teaching and at present, there are 3575 classes conducted through the LMS and classes are on from 8.00 a.m. to 10.00 p.m.

During the focus group discussions, one of the former Secretaries of an OBA stated that the Principal of the school has taken the OBA as a threat to his administration and OBA is not allowed within the school.

Findings of the study that involved several Past Pupils' Associations in the Western, Uva and Central Province reveal that the interference of the Heads of schools has caused a negative impact on the aspirations of the good work that includes enhancing the standard of the English language carried out by the past pupils.

If the schools can get the support of the Past Pupils, better exposure and opportunities could be created within the school with the experience of past pupils who would have even had their education in the English medium. The interview with the former Secretary of an OBA in Nuwara Eliya who has been educated in the English medium stated that his OBA is the only OBA that has been functioning in English for the last 75 years in the entire District, and the OBA is taboo within the school. The Heads consider the OBA as a threat.

The Peradeniya OBA secretary states that the teachers are prejudiced against them as the parents of the students are from humble backgrounds and all walks of life and the teachers do not wish to obtain the services of the Past Pupils. Another Secretary of a leading OBA in Kandy revealed that his OBA functions independently after a verdict given by the Magistrate court in Kandy in favour of the old boys.

E. H.Alwis, Director of Education stipulates the following objectives in circular No 27 issued on the 20<sup>th</sup> Nov 1964: "The Department of Education is well aware of the fact that the Past Pupils Associations have done immense service to their schools. Hereby an invitation is extended to establish Past Pupils Association in all schools to strengthen the relationship of the past pupils, and to function under the following constitution". The objectives have been cited in the constitution - To obtain the support of the past pupils in common activities of the school. To obtain the services to extend the premises of the school and to obtain instruments and equipment. To obtain the services to bring difference into the curriculum and to provide career guidance. To provide lunch successfully. If possible to provide something extra in addition to the lunch. To provide health facilities. To obtain assistance for religious and national events organized in the schools. To obtain the services to organize and support sports, athletics, sports meets, scouting etc. To obtain the services in organizing concerts, variety entertainments, folk singing, dancing events. To obtain the services concerning the school and society.

According to the focus group discussions that were conducted with Secretaries of three OBA's in the Central Province, the voluntary services of the past pupils is turned down by certain administrators of schools citing the circular issued in 1964.

# Improving English Language Teaching in Sri Lankan Schools: Past Pupils' Contribution

Table No 1

Unemployment Rate (a) (b)						
2019 ( C )						
Category	2018					
		Q1	Q2	Q3	Q4	Annual
All	4.4	4.7	4.9	5.1	4.5	4.8
<b>By Gender</b>						
Male	3.0	3.4	3.4	3.3	3.2	3.3
Female	7.1	6.9	7.5	8.5	6.9	7.4
<b>By Education Level</b>						
Grade 5 and below	..	..	..	..	..	..
Grade 6-10	2.9	2.9	3.0	3.4	3.4	3.3
GCE (O/L)	5.2	6.0	6.5	7.7	5.6	6.5
GCE(A/L) and above	9.1	7.9	9.5	8.7	7.7	8.5
<b>By age Group (Years)</b>						
15-19	26.5	23.3	27.8	24.3	29.1	26.0
20-24	20.1	21.0	17.8	23.1	19.2	20.3
25-29	10.4	9.0	12.6	11.8	10.4	11.0
30-39	3.0	3.0	3.3	3.2	2.9	3.1
40 and above	0.7	1.2	1.1	1.2	1.1	1.2

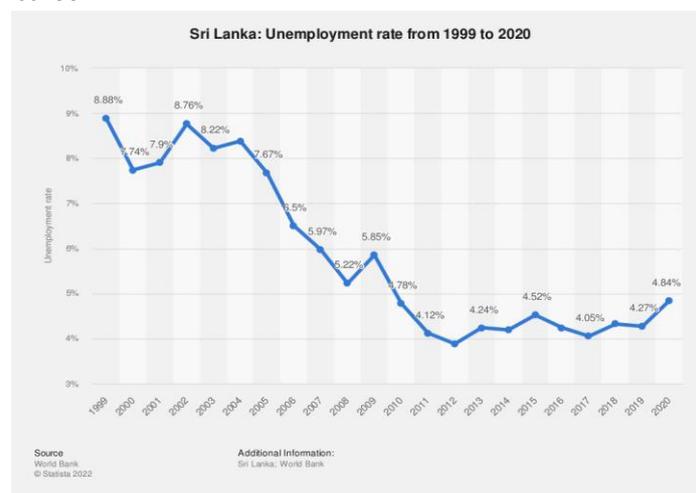
( a ) Household population aged 15 years and above

( b ) In July 2016, the Department of Census and Statistics published a re-weighted and revised labour force data series for 2011 onwards.

( c ) Provincial

Source: Department of Census and Statistics

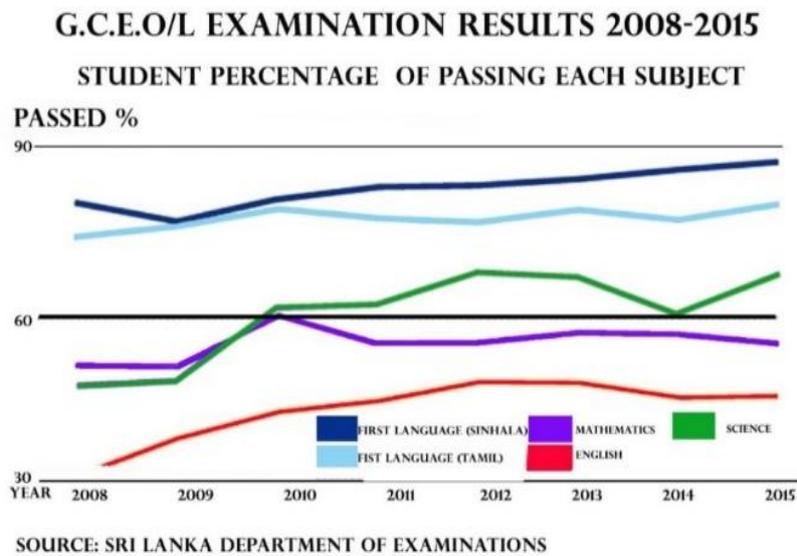
The statistics obtained from the Department of Census and Statistics show that the highest unemployed group belongs to the A/L qualified youth who are around 15-19 years old in Sri Lanka. The unemployment rate was 9.1 and 8.5 in 2018 and 2019 respectively. The root cause of the issue of unemployment is the incompetency level of the English Language among the youth who have spent thirteen years in school.



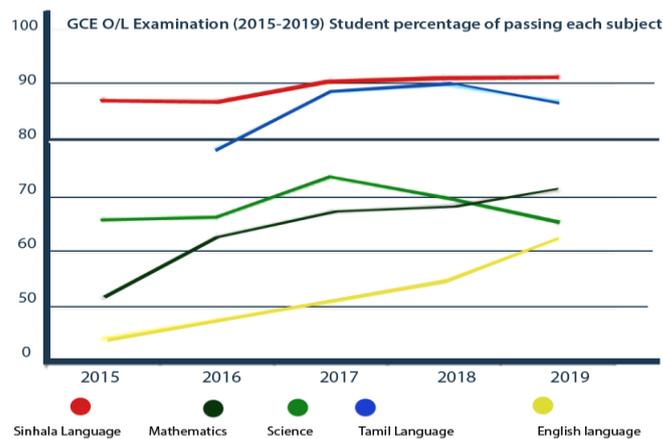
Graph No 1

## Improving English Language Teaching in Sri Lankan Schools: Past Pupils' Contribution

The above depicts the unemployment rate in Sri Lanka. From 1999 to 2008 the unemployment rate comes down and since 2012 the rate increases according to the additional information of the World Bank.

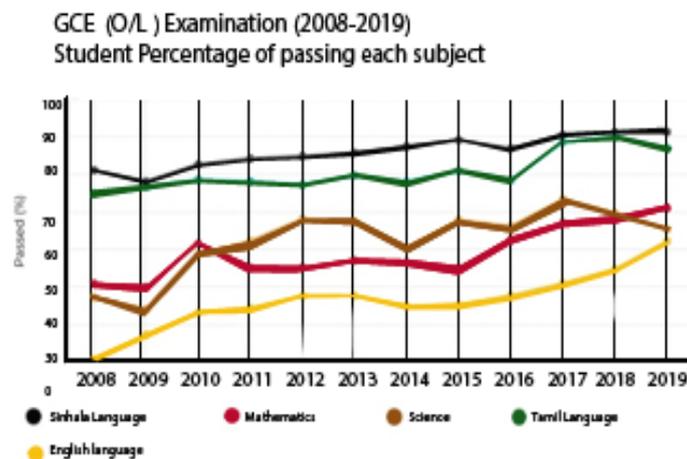


Graph No 2



Graph No 3

The G.C.E.O/L English language results from 2008-2019 depict that English language is the least passed subject among all other subjects.



Graph No 4

## Improving English Language Teaching in Sri Lankan Schools: Past Pupils' Contribution

G.C.E. O/L Examination (2015 – 2019)

Student percentage of passing each subject

Table No 2

Subject	2015 (%)	2016 (%)	2017 (%)	2018 (%)	2019 (%)
First Language (Sinhala)	87.28	87.03	90.63	91.30	91.40
Mathematics	51.93	62.81	67.24	68.30	71.08
Science	65.88	66.33	73.46	69.83	65.45
First Language (Tamil)		78.60	88.72	90.08	87.05
English Language	44.57	47.90	51.12	54.90	62.36

Source: Depart of Examinations, Sri Lanka

The above table of the O/L Results from 2015-2019 indicates that English has been the least passed subject with 44, 57%, 47.90,51,12, 54.90 and 62, 36%.

Table No 3

G.C.E.(O.L) Examination - 2019

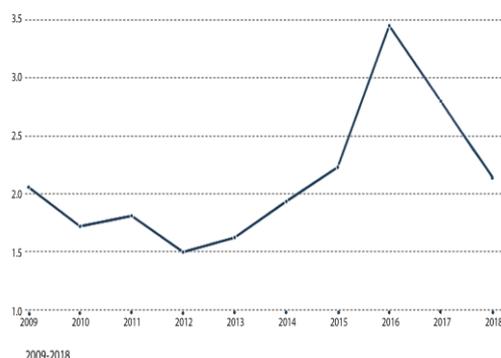
School Candidates (1<sup>st</sup> Attempt) - Results by Grades in each Subject

Subject	Number Sat	A		B		C		S		Passed (A+B+C+S)		W	
		Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
11. Buddhism	219808	76417	34.77	37901	17.24	49644	22.59	32369	14.73	196331	89.32	23477	10.68
12. Saivneri	34377	8637	25.12	5313	15.46	8499	24.72	6941	20.19	29390	85.49	4987	14.51
14. Catholicism	19549	8676	44.38	3233	16.54	3817	19.53	2379	12.17	18105	92.61	1444	7.39
15. Christianity	3186	496	15.57	574	18.02	912	28.63	767	24.07	2749	86.28	437	13.72
16. Islam	28598	6553	22.91	4459	15.59	6736	23.55	5884	20.57	23632	82.64	4966	17.36
21. Sinhala Language & Literature	238474	47964	20.11	48786	20.46	76034	31.88	45177	18.94	217961	91.40	20513	8.60
22. Tamil Language & Literature	66983	6228	9.30	10899	16.27	23528	35.13	17653	26.35	58308	87.05	8675	12.95
31. English Language	305162	32293	10.58	25873	8.48	55116	18.06	77029	25.24	190311	62.36	114851	37.64
32. Mathematics	304894	58858	19.30	32685	10.72	69839	22.91	55329	18.15	216711	71.08	88183	28.92
33. History	305371	56970	18.66	38363	12.56	86326	28.27	73353	24.02	255012	83.51	50359	16.49
34. Science	304987	25238	8.28	22507	7.38	62912	20.63	88963	29.17	199620	65.45	105367	34.55
40. Music (Oriental)	41828	9967	23.83	7031	16.81	11998	28.68	9372	22.41	38368	91.73	3460	8.27
41. Music (Western)	2371	1315	55.46	461	19.44	412	17.38	130	5.48	2318	97.76	53	2.24
42. Music (Carnatic)	8505	1552	18.25	1742	20.48	2945	34.63	1875	22.05	8114	95.40	391	4.60
43. Art	88372	4973	5.63	8427	9.54	30011	33.96	34082	38.57	77493	87.69	10879	12.31
44. Dancing (Oriental)	55179	7041	12.76	9307	16.87	17553	31.81	14951	27.10	48852	88.53	6327	11.47
45. Dancing (Bharatha)	2885	618	21.42	620	21.49	948	32.86	575	19.93	2761	95.70	124	4.30
46. Appreciation of English Literary Texts	8791	2666	30.33	2046	23.27	2406	27.37	1192	13.56	8310	94.53	481	5.47
47. Appreciation of Sinhala Literary Texts	24258	9876	40.71	6038	24.89	4816	19.85	2146	8.85	22876	94.30	1382	5.70
48. Appreciation of Tamil Literary Texts	26894	6760	25.14	4990	18.55	6629	24.65	4845	18.02	23224	86.35	3670	13.65
49. Appreciation of Arabic Literary Texts	2228	1147	51.48	304	13.64	269	12.07	241	10.82	1961	88.02	267	11.98
50. Drama & Theatre (Sinhala)	32555	3988	12.25	7340	22.55	13424	41.23	6619	20.33	31371	96.36	1184	3.64
51. Drama & Theatre (Tamil)	7470	1042	13.95	2138	28.62	2896	38.77	1206	16.14	7282	97.48	188	2.52
52. Drama & Theatre (English)	13	2	15.38	3	23.08	6	46.15	2	15.38	13	100.00	0	0.00
60. Business and Accounting Studies	88365	25132	28.44	18621	21.07	22560	25.53	14989	16.96	81302	92.01	7063	7.99
61. Geography	78888	14856	18.83	15289	19.38	23781	30.15	16699	21.17	70625	89.53	8263	10.47
62. Citizenship Education & Governance/ Civic Education	104528	11352	10.86	14614	13.98	30274	28.96	27272	26.09	83512	79.89	21016	20.11
63. Entrepreneurship Education	6855	948	13.83	1113	16.24	1957	28.55	1746	25.47	5764	84.08	1091	15.92
64. Second Language (Sinhala)	11382	4518	39.69	2970	26.09	2253	19.79	1252	11.00	10993	96.58	389	3.42
65. Second Language (Tamil)	12701	6056	47.68	3257	25.64	2459	19.36	828	6.53	12600	99.20	101	0.80
66. Pali	23	4	17.39	1	4.35	7	30.43	8	34.78	20	86.96	3	13.04
67. Sanskrit	6	0	0.00	0	0.00	1	16.67	1	16.67	2	33.33	4	66.67
68. French	360	41	11.39	42	11.67	82	22.78	86	23.89	251	69.72	109	30.28
69. German	206	59	28.64	37	17.96	51	24.76	34	16.50	181	87.86	25	12.14
70. Hindi	112	25	22.32	18	16.07	24	21.43	27	24.11	94	83.93	18	16.07
71. Japanese	719	398	55.35	76	10.57	88	12.24	68	9.46	630	87.62	89	12.38
72. Arabic	609	370	60.76	61	10.02	77	12.64	70	11.49	578	94.91	31	5.09
73. Korean	222	17	7.66	20	9.01	38	17.12	64	28.83	139	62.61	83	37.39
74. Chinese	55	6	10.91	11	20.00	13	23.64	13	23.64	43	78.18	12	21.82
75. Russian	5	1	20.00	1	20.00	3	60.00	0	0.00	5	100.00	0	0.00
80. Information & Communication Technology	60176	24961	41.48	11926	19.82	13471	22.39	7287	12.11	57645	95.79	2531	4.21
81. Agriculture & Food Technology	50741	6163	12.15	6627	13.06	13258	26.13	15724	30.99	41772	82.32	8969	17.68
82. Aquatic Bio. Technology	671	49	7.30	110	16.39	233	34.72	194	28.91	586	87.33	85	12.67
84. Arts & Crafts	3053	840	27.51	716	23.45	879	28.79	427	13.99	2862	93.74	191	6.26
85. Home Economics	34262	1378	4.02	3616	10.55	13682	39.93	9647	28.16	28323	82.67	5939	17.33
86. Health & Physical Education	141833	47989	33.83	29871	21.06	34658	24.44	19204	13.54	131722	92.87	10111	7.13
87. Communication & Media Studies	6115	572	9.35	957	15.65	1878	30.71	1701	27.82	5108	83.53	1007	16.47
88. Design & Con. Technology	3874	183	4.72	427	11.02	1687	43.55	1159	29.92	3456	89.21	418	10.79
89. Design & Mec. Technology	3374	439	13.01	547	16.21	1180	34.97	792	23.47	2958	87.67	416	12.33
90. Design & Elec. & Elec. Technology	1230	86	6.99	73	5.93	284	23.09	428	34.80	871	70.81	359	29.19
92. Electronic Writing & Shorthand (Sinhala)	13	0	0.00	2	15.38	3	23.08	7	53.85	12	92.31	1	7.69
93. Electronic Writing & Shorthand (Tamil)	2	0	0.00	2	100.00	0	0.00	0	0.00	2	100.00	0	0.00
94. Electronic Writing & Shorthand (English)													

Source: Depart of Examinations, Sri Lanka

## Improving English Language Teaching in Sri Lankan Schools: Past Pupils' Contribution

The above Table depicts the grades obtained in 2019 for English Language A: 10.58% B: 8.48%, C: 18.06%, S: 25.24% W: 37.6% comparing to other core subjects English Language in a low ebb.



**Graph No 5**

Sri Lankan Government Expenditure on Education total (% of GDP)

Expenditure by the GVT 2008-2018 on Education

World Development Indicator

( uis.unesco.org ) Data as of September 2021

**Table No 4**

Series Name	Government expenditure on education, total (% of GDP)
Country Name	Sri Lanka
Country Code	LKA
2011	1.80860996246338
2012	1.49617004394531
2013	1.62107002735138
2014	1.93288004398346
2015	2.22874999046326
2016	3.44919991493225
2017	2.79924988746643
2018	2.12420988082886

**Source:** UNESCO Institute for Statistics (<http://uis.unesco.org/>). Data as of September 2020

*Data from database: World Development Indicators Last Updated: 10/15/2020*

General Government expenditure on education (current, capital, and transfers) is expressed as a percentage of GDP. It includes expenditure funded by transfers from international sources to government. General Government usually refers to local, regional, and central Governments. Since 2016 the expenditure on education is on a decline. Average 2.79 per year which is far below the FUTA's demand for 6%.

The percentage of Government expenditure on education to GDP is useful to compare education expenditure between countries and/or overtime concerning the size of their economy; a high percentage to GDP suggests a high priority for education and a capacity of raising revenues for public spending. Note that government expenditure appears lower in some countries where the private sector and/or households have a large share in total funding for education.

### METHODOLOGY

The Past pupils come under stakeholders who belong to the independent variables of the Conceptual Framework of the main research.

In order to ascertain the views of past pupils focus group discussions were conducted without any prompting.

The main study of this research was conducted based on a mixed method using primary data from questionnaires, observations, interviews, and focus group discussions and secondary data from published sources such as Central Bank Reports, and Ministry of Education, Department of Census and Statistics and relevant publications.

## Improving English Language Teaching in Sri Lankan Schools: Past Pupils' Contribution

Past Pupils, Past and present officials of Past Pupils Association of three types of schools 1 AB, 1C and Type 2 from the same Education Zone of three different provinces based on the demand and the popularity of the school and the socio-economic status of the stake-holders were selected to ascertain the views and opinions of the past pupils on their contribution towards enhancing the English language standards of their schools.

### DEMOGRAPHIC DATA

Table No 5

Province	Number of participants	Gender
Western	RC 10, LAM 4,	Male 14
	10, Mc BB 02	Female 12
Central	TC 10, NE 10, PERA 04	Male 24
	Female 12	Female 12
Uva	10	Male 04
		Female 06
		72

### FINDING AND DISCUSSION

Many participants of Past Pupils Associations/Old Boys' Associations of schools in Peradeniya, Nuwara Eliya, Colombo, Badulla, Bandarawela and Kandy were not in favour of the circular dated 1964 which calls the Principals to lead the Past Pupils' Associations, and the participants posed the following questions

1. If the circular is so valid, then why the majority of schools have failed in setting up Past Pupils' Associations?
2. What action the Authorities have taken against the Principals who were unable to set up Past Pupils' Associations in their schools?
3. In this sense can the Educational authorities force the Past Pupils to elect the Principals as their Presidents?
4. Can Principals who are failures in their performance handle the affairs of the past pupils?
5. Are qualified and dedicated past pupils a threat to the Principals?
6. Can the Principals have the same degree of loyalty towards their workplace which is called the Alma Mater by the past pupils?
7. Are Principals trained to obtain the services of the past pupils who are honestly loyal and true spirited towards the welfare of their Alma mater?

The sincere interest of a group of Sri Lankan past pupils had prompted them to seek legal direction to join the executive committee of their schools where they have become parents of their children attending the same school.

Responding to a Writ application by the Past Pupils' Association of vested schools, the appeal court has given a verdict against Circular No: 26/2018 of the Ministry of Education recommending to maximize the number of Executive members who come under the parent category educated in the same school.

In the court of Appeal of the Democratic Socialist Republic of Sri Lanka: Petitioners: Asanga Peiris and Seven others. C.A (Writ) Application No: 21/2019 Respondents: Hon.Akila Viraj Kariyawasam, Minister of Education, Ministry of Education, Isurupaya, Battaramulle.

The Secretary, Ministry of Education 22<sup>nd</sup> April 2019 declares the following in his response to the petition: 22-“Answering the Petitioners Petition as a whole, I state that steps have been taken to delete the impugned clause in 4.2.1 (iii) of the Circular No 26/2018, to give effect to the grievance of the Petitioners. Accordingly the amended circular No: 19/2019 has been issued with effect from 9.4.2019, by the Ministry of Education.”

This amendment of the circular based on the petition of a group of past pupils of different schools in Sri Lanka is an indication of the views of the authorities against the volunteer services of the Past Pupils who strive to assist their schools for their development.

The Magistrate Court of Kandy has given a verdict in favour of the OBA to function with a past pupil holding the position of President of the OBA.

The Principal of a school in Nuwara Eliya who uses to circular no 27 of 1964 complaints of the functioning of the OBA goes to the extent of writing to another Principal of a neighbouring school to annul a sports event, but becomes a failure as his credentials do not support his cause, but discourages the Past Pupils of the continuity of their service to the school. The letter dated 12<sup>th</sup> July 2011 of the OBA of St Xavier's College to the Governor of the Central province is evidence to prove this fact.

## Improving English Language Teaching in Sri Lankan Schools: Past Pupils' Contribution

### CONCLUSION AND RECOMMENDATION

According to the focus group discussions that were carried out, the voluntary services of the past pupils is turned down or discouraged by certain administrators of schools citing the circular issued in 1964.

The following is recommended to mitigate the issue;

To Obtain the services of the past pupils in a professional and amicable way, revise the circular permitting the Old Boys' Association to function independently while building up a better rapport with the administration of the school and to train the Principals and teachers to work with the past pupils.

### REFERENCE

- 1) Boyle R, (2005,September),A brief history of Sri lankan english,Retrieved April 5,2008 from Oxford English Dictionary: <http://www.oed.com/newsletters/2005-09sri-lankan.html>
- 2) Circular No 26 of 2018-Ministry of Education, Sri Lanka.
- 3) Circular no 8 of 1993 Ministry of Education, Sri Lanka.
- 4) Circular No 27 Of 1964 Ministry of Education, Sri Lanka.
- 5) Gunaratne NH (1985),The History of the Old Boys' Association –St Thomas' College, Mount Lavinia
- 6) Gunawardene AA & Karunaratne JAMB (2017), University of Vocational Technology, Sri Lanka.
- 7) His Grace. Dr Oswald Gomes (Ph.D.), 2009. Some Christian contributions in Sri Lanka
- 8) Kuriacose T.C. & Willima p (1995),Hundred Years of Love & Service ,St Aloysius; College, Galle,
- 9) Keble W.T. BA.(Oxon) (1937), A History of St. Thomas College, Colombo
- 10) Sigamoney Pillai GW & TB Jeganathan (2009), Perspective, Xaverian Historical Document.
- 11) Perspective Xaverian Legend of a Hundred and Fifty Years, 2009. ISBN 978-955-53326-0-9
- 12) Parliament act – Act No 5 1960, Act No 8 of 1961, Act No 65 of 1981
- 13) Ranjith Ruberu – 1962, Education in Sri Lanka
- 14) Rev.Bro. Michael Roberts, De La sale Brothers in Ceylon 1819 -1919, 1919-1961,1962-2009-
- 15) Robert V Hogg and Marry Hogg "Continuous Quality improvement in Higher Education"
- 16) Susan Clouse Dolbert; 2002; Australian International Education Conference; Future trends in alumni relation
- 17) Trinity College Kandy, 2000
- 18) TOI dated 26th January 2018 – Art by Hemali Chabbia
- 19) Royal College Colombo, 2000
- 20) Weber G. (1997), Top languages-The world's 10 most influential languages, Language Monthly, 12-18.



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## Identity, Community Education and Private Schooling—On Gus

### Lee's *China Boy*



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**ABSTRACT:** Chinese American literature, as a unique part in American literature, since its appearance has undergone dramatic changes and received more and more attention at home and abroad, especially after the 1960s. The special writing style, the gender problem, the emasculated Chinese men and the struggles of oppressed Chinese are always the issues that catch the notice of critics. Among them, the exploration of identity is the most pervasive. From “yellow peril” to “model minority,” Chinese American identity has experienced a great transformation. To interpret this phenomenon, critics have adopted different perspectives, like historical, cultural, religious, psychological and sociological ones. However, few of them pay attention to the influence of education on Chinese American identity formation. Despite several researches about the role of education, most are focused on some limited samples acquired through the qualitative methods. *China Boy* as the debut of Gus Lee, since the publication has provoked a stir around the world, this research concentrates on the influence of education on the identity formation of Kai Ting, the protagonist, from a scraggy little boy to a strong one in the dilemma of traditional Chinese culture and dominant culture. Through the research of community education and private schooling, the thesis tends to probe into the impact of education on the construction of Chinese American identity.

**KEY WORDS:** China Boy; Identity Formation; Education; Chinese American

### 1. INTRODUCTION

Unlike his three Chinese-born sisters, Gus Lee is the merely one born in America. His father Tsung-Chi Lee is a rebellious, courageous and educational ex-KMT military officer. He remarried a white well-educated Pennsylvania woman Edith after the tragic death of his wife. His mother Da-tsein came from a traditional scholar family that cherished education and religion. Nourished in the complex family, Gus Lee therefore like his protagonist, encountered numerous complexities and frustrations in his growth. Since his debut *China Boy* published, it has aroused many readers and critics' great interest. *China Boy* set a brilliant achievement of the first printing of 7,5000 copies, and became San Francisco's first one city book selection. Comprised with thirty-one parts, *China Boy*, a semi-autobiographical novel presents a scraggy boy's turbulent journey in searching of the identity-construction. Until six, Kai Ting spends a carefree childhood with the concern of his kindly mother. Educated by Daili, the embodiment of traditional Chinese culture, Kai Ting learns almost nothing about the western culture. However, the abrupt death of his mother and the appearance of Edna, a woman who tries to erase every vestige of Chinese culture compel him to face the ruthless street. Torn between two worlds, Kai desperately needs to find a way out. With the help of Uncle Shim, his mother's intimate friend, Toussaint, a bosom in the community and Barraza, the devoted teacher and friend in Y.M.C.A., Kai gradually dares to face the bully of Big Willie and the violence of Edna. He begins to gain some knowledge about his individual identity.

### 2. THEORY OF IDENTITY FORMATION

“Knowing myself” has been haunted in people's, especially immigrants' minds for such a long time. But how many of them really understand “who I am” and can truly find out “who I should be.” As a popular term in today's sociology, psychology, politics,

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literature and many other aspects, "identity" stems from psychologist Erik Erickson's seminal work, *Identity: Youth and Crisis*, in which he regards that the period of adolescence and early childhood is the primary time that individual and group identity establish. In other words, "Identity refers to the integrity and continuity of an individual's personality, the values and modes of life an individual identifies with" (Wang, *Being and Becoming* 2).

According to Dipboye, "identity is seen as that which 'renders individual unique, which allows him to answer 'with certainty the question, Who am I?'' (qtd. in Tajfel 61). Stuart Hall in his *Who Needs Identity?* proposes that instead of being static, identities will continue to change under the influence and interaction of history, power and culture.

Based on earlier viewpoints about racial identity model and their own research, in *Counseling American Minorities*, Atkinson, Morten and Sue develop a five-stage Minority Identity Development (MID) model. The first stage is Conformity Stage. Minorities at this period, instead of appreciating their own ethnic group, tend to identify with the dominant culture. Their views towards themselves and other minority groups are strongly influenced by the mainstream culture. They are likely to devalue and contempt themselves as being physically different from dominant society. The second stage is Dissonance Stage. With a growing awareness of minority cultural strengths, they begin to hold negative perspective about Conformity Stage and start to show positive attitude towards their own ethnic culture. The third stage is Resistance and Immersion Stage. Contrary to the first stage, the minority individuals at this time completely adopt the ethnic values and decline the mainstream culture. "Why should I feel ashamed of who and what I am?" will be proposed frequently in this stage. The fourth stage is Introspection Stage. In this stage, minority individuals tend to hold feelings of discontent and dissatisfied with the previous period. The attitudes towards dominant culture are no longer wandering between two extremes. They at this time can treat the identity problems from the dialectic view. To them, at this moment, both of the two cultures have positive and negative aspects. Yet conflicts still exist during this stage. The last stage is Synergistic Stage. Minorities in Synergistic Stage experience a feeling of self-satisfaction with regard to their identity. They are able to accept or reject the cultural values of ethnic groups and mainstream culture objectively through their previous experience. It is possible for them to establish their identities as an individual, a member of an ethnic group and a part of the dominant culture (Atkinson et al. 40-44).

In the MID model, Atkinson, Morten and Sue probe into each stage through four aspects respectively: attitudes toward self, attitudes toward members of some minority, attitudes toward members of different minority, and attitudes toward members of dominant group. According to the analysis of the above four perspectives, Atkinson, Morten and Sue describe the gradual change of minority individuals' attitudes through their increasing awareness. From wandering between two extremes, either rejecting the dominant culture completely or declining the minority group totally to regard both of them objectively, ethnic groups gain a dramatic improvement step by step. Although the MID model describes five distinct stages, Atkinson et al. believe that there are no clear dividing lines between each stage. The five phases of identity formation is not absolutely distinct, instead, each stage may fuse with another one, and thus forming a flowing process.

As social psychologists, Tajfel and Turner pay more attention to the individual feeling affiliation towards the group in the process of identity formation. They, at the same time, show interest in researching the following consequences resulting from the identification with the social group. People see themselves no longer as the individual selves but the prototypical representatives of their social group. Instead of focusing on the ideal developmental stages of ethnic minority, Henri Tajfel keeps eyes on the negotiation of identity as group membership located in the big social context. In *Social Identity and Intergroup Relations*, he defines social identity is individual holds that the belonging to the social group not only the physical body but other aspects as well, like some emotional and value importance to him of the the group membership . Tajfel refers the motivation for positive social identity which produces a drive for intergroup superiority as the sequence of social categorization, social comparison and psychological distinctiveness. Social categorization, as to Tajfel and Turner is cognitive tools that used to divide, categorize and maintain the social circumstance, which results in individual performance of conducting certain types of social action. By comparing directly with out-group, individuals in group try to acquire positive differences and distinctiveness (dissatisfied with the negative social identity, group members utilize diverse methods to positively connect themselves with other social group), which is called social comparison, according to Tajfel and Turner.

In order to maintain the positive identity, social group will adopt variety of methods to maintain or restore their social identity. Tajfel and Turner point out four types of strategies. Individual mobility: members will be motivated either to leave that group physically or psychologically to dissociate them from it and aspire to membership of higher status group. Social creativity: altering

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or redefining the negative identity. Choice of social comparison group: avoiding unfavorable comparison with advantaged group or choose to be compared with the group which has lower status. Social competition: group members may achieve positive social identity through direct competition with out-group (Tajfel and Turner 43-45).

As a dynamic and multidimensional process that evolves and changes in response to developmental and contextual factors over time, ethnic identity development according to Phinney is “an aspect of becoming adult” from adolescents (Phinney, “Ethnic Identity: Developmental and Contextual Perspectives” 1). It is difficult for most of the young people, especially ethnic minorities because of the complex world in which they live. Confronted with discrimination and prejudice, ethnic minorities have to figure out who they are and where they are from, that is to say, find a secure identity.

In order to better understand the formation of ethnic identity, Phinney proposes an ethnic minority development model, which comprises the following three stages. Unexamined ethnic identity: prior to adolescence, children have almost no idea or have negative opinion towards their ethnic identity. Ethnic identity search: after experiencing some setbacks, at the onset of adolescence, minorities begin to introspect about the ethnicity and start to learn and search for what it means to be an ethnic member. Ethnic identity achievement: adolescents in this stage have already got a secure, stable and comfortable identity and can hold a realistic assessment of one's in-group in a larger social context.

Identity construction has long been the hot topic in discussing Chinese American literature. But it is rarely connected with education. Even if some critics notice this connection, most of them merely probe into it through quantitative method in some schools. Chinese Americans' long history of being discriminated in education field and their continuous efforts in fighting for education opportunities are doomed to influence identity building. The following will concentrate on the effect of community education and private schooling on Kai Ting's identity formation.

### 3. COMMUNITY EDUCATION AND PRIVATE SCHOOLING

Chinese since the ancient time have put pervasive efforts in education. It is generally true that “Asians tend to believe that more education will necessarily bring wealth, prestige, and social status to the entire family” (Park et al. 152). In examining the history of Chinese American educational history, it is apparent that Chinese Americans experienced a long and hard process from being excluded to be accepted, to some extent, from “yellow peril” to “model minority.”

Education as Lawrence A. Cremin defines is “the deliberate, systematic, and sustained effort to transmit, evoke, or acquire knowledge, values, attitudes, skills, and sensibilities, as well as any learning that results from the effort, direct or indirect, intended or unintended” (qtd. in Yi 8 ). From Cremin, it is possible to conclude that education includes more than formal education in public school, but also varieties of informal agencies or institutions, such as families, churches, benevolent societies, youth groups...

This part discusses informal community education in the Panhandle, a black community. Panhandle, “was the butt end of the underbelly of the city, and was lucky to have plumbing,” whose inhabitants, especially the Panhandler boys “did not beg but to fight” (Lee, *China Boy* 3). Nourished in such chaotic atmosphere without care and protection from his birthmother, Kai Ting gradually adapts to the jungle law. Under the influence of the community violence, the impact of his best friend, and the education of Y.M.C.A., he assimilates into the street jungle in the end.

#### 3.1 Community Education: Struggling to Establish Individual Identity

According to Rosendale et al., children are influenced by the message from the community to some extent. Phinney notes that a positive attitude towards one's own group can be derived from the context provided by a significant ethnic community. Due to his not growing up in Chinatown, the ethnic community used to protect and maintain traditional Chinese culture, Kai has some problems in sustaining his ethnic identity during his childhood. The black community where he lives during the childhood, to some degree, has a great influence on Kai's identity formation.

##### 3.1.1 Community Violence: the Direct Cause of Identity Awareness

Kai appears in our sight with a defeated look at the first part of *China Boy*. Because of his Chinese face and his weak body, he always becomes the target of attack in the community once he appears on the street.

Locating in the social community, one will inevitably be impacted by the group memberships. People thus see themselves no longer as the individual selves but the prototypical representatives of their social group. According to Turner and Tajfel, in some

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circumstances, group membership greatly influences our conception of ourselves and others as well. This influence is not stable but flowing. A complete secure social identity is almost impossible to get. Individuals even those who occupy the superior position have to constantly maintain or search for a positive identity. Tajfel considers that in order to establish social identity, individuals have to take three steps. In the stage of social categorization, individuals have to define themselves as a member of a distinct group.

Though contrary to what Uncle Shim advocates, disobey the essence of traditional Chinese culture and education that his birth-mother taught and violate the humanistic standards of Chinese society, Kai has no other option but to use fist to build his identity in this turbulent and dirty black community. Fighting is a metaphor for him. As to Kai, the fighting on the community street is actually a struggle to figure out who he is, what he should do. The fighting is the indication of surviving as a member of group and even the sign of being a human being. As Gus Lee confesses in an interview, it is more difficult even to “become an accepted black male youth in the 1950s” because of his Chinese identity.

In the initial years after Daili's passing away, with unclear personal identity, Kai is like “a poor little Chinese hothouse plant.” American culture to him is still a mystery and “the evolving black structure of the Panhandle was an enigma.” So when Edna evicts him out the house, he becomes the target of the attack immediately for his special Chinese appearance. Some of the blacks in the community even don't think he is a human. In their eyes Kai is so ugly and they have no idea “where all the color had gone” (61). In social identity theory, Tajfel presents that inferior group members, in order to gain a positive identity, sometimes will choose to compare with out-group members that are of lower social status than themselves. In order to retrieve the destroyed self-esteem from the dominant culture, the black boys on the street with Big Willie as the leader, select Kai as the contrastive object. Being punched, hit, kicked and treaded from then on become the routines before Kai's final identity awareness. Under numerous attacks, Kai still can not figure out what he has done to make all these sufferings. Christian churches thus become his life-saving straw. Kai confesses to God that he is always trying hard like Han Tzu-ren the good student, who does not hurt living things. Though he prays to God sincerely to not let others beat him, he perceives no sign. “Nothing happened. God was busy with other people, probably firstborns” (94). Hereto, Kai begins to acknowledge that no one can help him, Edna can not, Janie can not and even God, this almighty saviour discards him. He has no option but to face the current situation all by himself. Self-awareness spurs Kai to try to change his self-image from the “flat, kibbled variety” (1) and the little China boy to a masculinized man.

### 3.1.2 Fighting for Identity Establishment

Environment, as we all know, has a great impact on one's development, which will further influence a person's identity construction. One person, child in particular, may tend to imitate what others undertake. Activities involving personal engagement or presence as to Bronfenbrenner are the environmental events that influence individual identity formation most instantly and strongly. Bronfenbrenner believes that engaging actively in what others doing or even exposing to the same environment will encourage the individual to imitate others and attend to the similar activities.

In this community filled with a cluster of angry boys with their fists up, Edna's abuse in the house reenacts again. This time, the abuse is reenacted by different fighters. Fighting, this special activity, as the final test of life on the street, is inevitable in this black community. Fighting not only measures a boy's courage but also “tested the texture of his guts, the promise of his nascent manhood, his worthiness to live and bear friends on poor streets” (90). Facing the bully from all street players, Kai gradually begins to gain knowledge about self. From the initial regarding himself as a girl to the final clenching fist to Big Willie, Kai's identity construction experiences a long and hard process. Running away while confronting black boys in the community is not the first choice for him any more. Kai selects and dares to face the obstacles step by step after he is beaten for so many times. He, at this time chooses to lift his fists no matter his opponent is strong or not. Although his body is still not strong enough, his courage is established day by day. Until the day he defeats Big Willie, a swashbuckling boy brought him the nightmare, Kai's misery life begins to change. After engaging in group, one gradually learns or forms the stereotypic rules of that classification. They are sure that some behaviors are the criteria of category membership. Certain appropriate, expected or desirable behaviors are used to define the category different from other ones according to Tajfel.

While being beaten for the first time, Kai cries and screams loudly, but he gradually finds that “screaming, crying, and making other disgusting, self-effacing noises were no bar to beating,” but makes them “add spice” (Lee, *China Boy* 63). He begins to learn to avoid the first punches even though he fails to dodge not all of them. Instead of crying and screaming instantly, he begins to run

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as fast as he can to protect himself. When he is “chased, blocked, and channeled into the fence or a wall,” Kai finally realizes that escape can not solve the problem. With the help of Toussaint and teachers from Y.M.C.A., Kai learns about the importance of fighting day by day. Gradually, he dares to face it directly. Toussaint encourages him to face bravely towards the bully and fights back with all his efforts. Teachers in Y.M.C.A. train him to become stronger, especially Tony Barraza. With the muscular body, Kai goes nearer to the winner.

“Behavior evolves as a function of the interplay being,” Kai Ting starts to use his fist like kids on the street step by step. The relationship between person and environment, expressed symbolically in Kurt Lewin’s classic equation:  $B=f(PE)$ <sup>[1]</sup> (Bronfenbrenner 16). To get rid of the “China Boy,” this insulting title, to change his miserable status caused by street fighters and even those who are little and more vulnerable than him, and to establish his identity as an individual, Kai has to run against what the traditional Chinese culture advocates. In his second book, *Honor and Duty*, Gus Lee further notes that by using skinny, weeping yet hard-knuckled fists, he begins to fight against the dirty and bloody words spoken by others.

### 3.2 Influence of the “Godmother”—Toussaint

It is known to all that peers play a critical role on the road of individuals’ development, especially during the adolescence. Burman and Bushmaster suggest that during adolescence, close friends begin to supersede family members even parents to become the main source of social support and are beneficial to the formation of adolescents’ self-realization and well-being. “Acceptance by peers is an important part of adolescent self-identity and has a strong influence on psychological adjustment” (qtd. in La Greca and Harrison 2). In this black community, it is Toussaint LaRue’s appearance that saves Kai from the lonely, miserable and hopeless condition. He is like “a blond fairy godmother in a pastel blue dress with a magic wand, giving me second chances from ages seven to fourteen” (Lee, *Honor and Duty* 65). He becomes “my guide to American boyhood.” Like the godmother, Toussaint is always there for Kai. He teaches Kai how to survive like a human being in the world filled with unfairness and he even explains life to him.

Toos is the infant name of Toussaint LaRue. Like Kai, Toos is a poor boy in this black community. His father died in the war when he was a little boy. But he still grows up happily with the gift of his mother’s love. Unlike other boys on the street, Toos sympathizes with this scraggy little Chinese boy. He never pounds, traps or cuts Kai down. Instead, he offers hands and opens his heart to Kai, teaches him sincerely and takes him to his home. Like Kai, Toos is a poor boy who grows up in a single parent family. Yet he grows up courageous enough with the gift of his mother’s love. In order to make up Kai’s cultural deficiency and help him adapt to the street life as soon as possible, Toos gives him an instruction in the following three respects: language, sports and fighting.

Language is central to individual’s sense of place in the world, because “identities are constructed within, not outside, discourse” (qtd. in Wang, *Being and Becoming* 4). Language is much more significant to minority individuals. “The first step toward self-actualization and identity requires a facility with language and the power to speak” (qtd. in Feng 71). The death of his birthmother is the end of Kai’s fluent communication with others. Unable to speak both Chinese and English, Kai loses the chance to stand up in the black community. So rectifying Kai’s broken pronunciation becomes one of the main tasks of Toussaint LaRue. “Long. Not light!” (Lee, *China Boy* 98). “No, no. China. Momma says, don’t say ‘dat’ or ‘Dem’ or ‘dee.’ Say it like this-see, move your lips: ‘that’, ‘them’” (Lee, *Honor and Duty* 65). Under his persistent efforts, Kai gradually understands what others talk about and can speak some black English. All these help him adapt to the black community as soon as possible.

Boys in Panhandle play ball by jumping, fighting and running. Unlike Chinese scholar, as a true American or as a true human being in this black slum, one has to know sports and be skilled in it. Specializing in playing sports is the precondition of good physical shape. “Lissen, China. When the ball come in, don’t hit it with your face. Use the hands. Catch it like this, cradle it, like it was a friend” (65). Under the patient instruction of Toos, Kai gradually increases his once frustrated confidence. It is Toos who helps to lead him towards the road to be an American boy with strong body.

As the final test of street life, learning to fight thus becomes the most significant thing for Kai in order to survive with dignity. “China. Don be crying no mo...Don run, now, Ain’t cool” (Lee, *China Boy* 98). Toos teaches Kai to face the difficulties bravely, “putcher fists up. Make a fist! B of han’s” (98). No one likes fighting, Toos tells Kai, yet kids have to fight in order to become a man.

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[1]  $B=f(PE)$ : Behavior is influenced by both person and environment.

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For “fighting was a measure of citizenship,” no matter you like it or not. “It hard be levin, be a upstand-boy on dis here block, ya’ll don fight. Don Havant win, Jes figbird” (106). Toos’ persuasion and encouragement make Kai finally admit that to survive in this severe situation, mind highlighted by Uncle Shim alone is not enough or reliable. Only through fighting back can one secure his status and establish his identity.

Burman and Bushmaster think that during adolescence, friendships are “a primary source of social support” (qtd. in La Greca and Harrison 3). During the identity-building process, Toos not only instructs a direction for Kai Ting, but also makes him believe that he is not alone in the world. He introduces to Kai his closest buddies and his neighbors: Sappy Suds, Missus Hall and Mr. Carter. He also brings his mother, Mrs. LaRue to Kai. She later becomes Kai’s black mother. “Mrs LaRue was Chinese! She just didn’t *look* it” (Lee, *China Boy* 108).

Self-esteem as to Phinney is related to the positive attitude towards one’s own group and other groups around. “A significant correlation between self-esteem and out-group attitudes has been found among (Latino),” besides, “positive feelings about one’s own group has been consistently found to be related to self-esteem” (Phinney et al., “Intergroup Attitudes among Ethnic Minority Adolescents: A Casual Model” 958). According to Tajfel, the boosting of self-esteem is to find a more positive social identity. Toussaint LaRue helps Kai retrieve his long-lost esteem and has a great impact on Kai’s attitudes towards outgroup as well his later ethnic identity formation. With the aid of Toos, Kai finds the courage to live on, feels the warmth coming from the black mum and the happiness as a poor boy and reestablishes the self-esteem even as a vulnerable one. Bushmaster and Sullivan point out that “close friendships are essential to the development of interpersonal intimacy, empathy, and perspective-taking skills” (qtd. in La Greca and Harrison 3). Friendship and peers around him gradually rebuild Kai’s self-esteem, which do a favor in Kai’s later identity construction.

### 3.3 Y.M.C.A.: the Cradle of Gradual Rising Status

Y.M.C.A., as an informal school is of great importance in Kai’s identity development. At this school, Kai spends almost all his childhood and adolescents. Around ten years’ study and exercise aid Kai to develop into a muscular and strong boy here. They also play a vital function in his later entering West Point. In Y.M.C.A., Kai meets Tony, an intimate teacher. A man who even becomes his another spiritual father during his hard time.

#### 3.3.1 Tony Barraza’s Education: a Stronger Body and a Dramatic Change

It is known to all that apart from parents, teachers are the primary instructors and educators for children’s identity construction. How they behave, how they teach, what they deliver and even what they think are all related to the growth of students closely. Under the instruction of Toos, Kai increasingly gains courage to face the chaotic community. But courage alone can not save Kai totally, a strong physical body is essential at this time.

After Kai is beaten bitterly by Anita Mae Williams, a tall and swift-limbed ten-year-old girl, T.K Ting eventually comes to the reality of Kai’s life. Unlike traditional Chinese parents who choose to solve all problems for their children, T.K Ting decides to send Kai to learn boxing to stand on his own, and to become an independent individual. For relying on oneself independently is the doctrine of mainstream culture. Y.M.C.A. hereto comes into Kai’s life, a place where he finds his putative godfather—Tony Barraza and other good teachers. Their target is to teach young men how to box to strengthen the body, and how to develop their character and their spirit. It is “a place of torture, a palace of pain, a formal school where street horrors were enacted under adult supervision” (Lee, *China Boy* 145). In the mind of Tajfel, the world we live in changes continuously. What happens in the social environment as to us is associated with the group activities which we engage in or even ones we do not attend to. Belonging to Y.M.C.A., this group, Kai wants to learn to use formal boxing to control the violence in the ghetto, and use disciplined violence to defeat the unrestricted one.

As a teacher, Barraza gives Kai his time, all his patience, all his efforts and all his experience. To this emaciated Chinese boy with so less care from T.K Ting, Tony is like a father through his days in Y.M.C.A.. He thinks that Kai is worthy of great effort like his own son. “Mr. Barraza was giving me gold” (177). He encourages Kai to have a try for he has the power and right as an individual. The lecture of Y.M.C.A. is carried through from the following two aspects: body and mind.

Boxing appears as a way of releasing anger aroused in a limited space within limited time. Boxing, this disciplined violence, whose features are “nationalist, assimilationist, and masculine, becoming a significant method for claiming an American identity” says Nguyen (qtd. in Song, “A Quest for American Dream” 20). Though, disliking boxing, young Kai has no other way in order to

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establish his American identity and survive as a human being. Lee once confessed in an interview about *China Boy*: "I was no more interested in boxing than dying by any other form of physical confrontation....The boxing gloves were bigger than my head and weighted more than body...; but I was sent there by my father and by a man in the neighborhood who felt that if I did not get boxing lessons I would get killed" (San Francisco Library, 2006).

Unlike Uncle Shim, Barraza contends that America, Panhandle in particular is not a place suitable for thinkers. All he does is just to save the little boy out by using what he learned before. To survive in this violent society, weedy body is a fatal blow. With his patience, Barraza tells Kai how to stand up correctly, how to attack the opponents adeptly and how to rely on himself through boxing. "Win for you means to get through it and burt your opponent. And that is the truth, son, even if you leak all your blood right here on this street and you can't see for your eyeballs being in the blood. There are no bells and no three-minute clock. You have no corner" (Lee, *China Boy* 292-93).

Under this kind of education, Kai becomes stronger day by day and his life improves step by step. While someone calls him "China Boy" again, he no longer lowers his head, but stops to cast his fist. After being slapped by Edna, he no longer cries and covers his face, but feels angry. Kai is beginning to have a place in the world.

### 3.3.2 Finding a Home for the Mind and Spirit

The second point is to strengthen the mind. "Why am I here?" is the first problem should be solved just as individuals have to figure out who they are. Barraza tells Kai that the only purpose of his coming here is to establish his identity, to make a man of himself for the reason that Americans rely on themselves. Mr.Barraza is constantly inputting courage and self-awareness into Kai's mind, such as, "Bur gonna be Sunna God's children, and not a bruise bag, an ouch paunch, fer them dumb un-Christian bullies" (232). The key point to be an American is to gain knowledge about what Americans strive for. Like a father, Tony gives Kai his meal, takes him to his home, which helps to find a warm place in Kai's cold heart. Besides Tony, there are some other teachers, like Mr. Punsalong and Mr. Lewis. They educate Kai that there are still other things he needs to learn besides gathering the courage and gaining self-awareness. Mr. Punsalong teaches Kai the importance of defense and resolution. When the punch comes, hitting back is necessary no matter he is crying or pissing his pants. Resolution, the one that determines to defeat the rival is all he needs. Mr. Lewis tells him the significance of thinking, "thinking, lets you win, in *everything*" (194).

Boxing in Mr. Lewis' eyes is science. It not only depends on the physical body, but also the brains. Fists are definitely important in boxing, so is thinking. While meeting Lucky Jerome, another poor but unfriendly black boy for the second time, fear still fills in Kai's mind, but this time he tells himself not to run but to use his brain to solve the current problem. Even though without ring, boxing space and coaches, Kai finds his own pace with the thinking. "I start again with Combo Four, 1-1-3-2," "Sou go wan bah dan!" (271). He keeps thrusting his fists into Lucky's face until the blood appears. With the combination of fist and thinking, Kai even makes Jerome cry. Being exercised in Y.M.C.A., Kai gradually picks up his long lost confidence and self-esteem. "I felt like a historic rebel, a Chinese kid with the mouth of renegade warlord, ready to tear the roof from Heaven itself" (271). The triumph of Kai contributes to building his confidence. He begins to think that anything is possible. In reality, the biggest enemy waiting for him is not Jerome, but Big Willie—the neighborhood bully and Edna—the embodiment of whiteness.

Big Willie, as Toos puts it "he don't take'em ta wear. He take'em to take'em" (106). What he wants is just to build a law for himself. He has become "the juggernaut of my life, exemplifying the uselessness of effort" (282). Big Willie is like a stone that blocks his way towards assimilating into this black group. Instructed by his three guiding fathers, Mr. Barraza, Mr. Punsalong and Mr. Lewis, Kai finally makes his decision to gain back his self-esteem and build his identity in this black community. "All you have to do is hurt him, to give, not receive. Spend it all, leave nothing" (309). With all his efforts, Kai feels his body is "a hormonal atomic bomb, splintered in pain, propelled by adrenaline, crazed between mortal fear, uncontrollable rage, and mindless fury" (313). As the delegate of oppressed minorities, Kai succeeds in beating this bully away from him. He hereto overturns his inferior status under the education of those coaches in Y.M.C.A.. Kai cries loudly at the bottom of his heart, "Oh, Coach-Fathers. Thank you, Fathers" (319).

Edna is another big problem besides Big Willie. Her principle and punishment have irritated this Chinese boy for a long time. It is time for him to retrieve his lost dignity and his lost voice. "I done poun' Big Willie," he says with great clarity, "I want go inside...I want drink" (322). "I" as the symbolization of right, and high social status claims Kai's recapturing his identity. "You not my Aah-ee! I ain't fo' yo' pic kin-on, no mo'!" (322). These two sentences with the combination of verbal and physical violence expressed

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through Chinese and Black English appear as a new and unique Chinese American identity. In *Honor and Duty*, Lee tells us that Edna is frightened by this scene. She cries and makes peace with him from then on. Kai since then totally adapts to the black community with the dual identity of Chinese and black American boy. Kai’s final confrontation with Edna by using the mix of black English, the black toughness, uncompromising attitude, and his boxing style is like a final claim for his lost everything, including his birthmother.

It is these strong black teachers in Y.M.C.A. and Toussaint LaRue, his first best friend who save Kai completely from the chaotic and dangerous community. As James Baldwin puts it, “In the United States, violence and heroism have been made synonymous except when it comes to blacks” (qtd. in Nguyen 10). Fighting or violence in Gus Lee’s eyes is not the atrocity that disturbs the social security but the essential means applied to establish inferior group’s identity. The disciplined boxing gives Kai a strong body. Those fathers offer him a clear mind, and Toos helps establish his courage. Kai finally not only survives in this chaotic black community, but also claims his identity from Big Willie and Edna. During this period, Kai gradually internalizes the American doctrine: no one can help you but you yourself. Thinking as to Uncle Shim, this Chinese scholar, is the key point in dealing with problems. Trying one’s every effort to fight against the bully is what those American teachers teach him. Kai gradually realizes that in this foreign land, thinking proposed by Uncle Shim can not save him, only the struggling doctrine highlighted by the mainstream culture can rescue him from the troublesome. Under the influence of the American black adults and peers, Kai goes towards the American identity closer step by step, though he still remembers his mother’s and Uncle’s Chinese doctrine. After he attends West Point, Kai describes that his childhood campaign makes him become a successful Negro youth. By means of defeating Big Willie, Kai finally establishes his unique Chinese American identity. In the third stage put forward by Atkinson, Morten and Sue, the individuals completely endorse the minority view and discard the doctrine advocated by the dominant culture. However, Kai transcends the Resistance and Immersion Stage, and steps into West Point to search for his American identity.

## **4. CONCLUSION**

Chinese American identity is by no means simple, whose developmental process is as well complex. Only after suffering from setbacks in mainstream culture can Chinese Americans truly recognize the importance of identity. From the childhood to the adolescence and then to the adulthood, Chinese American identity construction experiences a long and dynamic process. Through the analysis of Kai Ting’s identity formation under the impact of education, it is not difficult to see the significance of education to the construction of Chinese American identity. Instructions and influence from different delegates of either traditional Chinese culture and mainstream American culture will help lead to the final achievement of identity construction, but may as well make individuals feel confused before their eventual integration.

The setbacks and bully suffered on the street make Kai gradually understand the importance of building identity. With the support of Toussaint LaRue and teachers from Y.M.C.A., Kai stands up and establishes his individual identity step by step. With the expectation of his failed father, Kai at the age of 17, steps on the road of setting up his American identity. The discrimination from white peers then leads Kai to realize that he can never become a true American because of his different complexion. Under the education of two teachers in the college and instructions from the embodiment of the past—Uncle Shim, Kai comes to the recognition of the significance of preserving the root and maintaining the ethnic identity. The final dropout from West Point makes Kai confess his long term confusion and split because of too many wants from others around. He, at this time, decides to take a new road that has been adopted by his father and Uncle Shim. Since neither the assimilation to the dominant society nor the adherence to the traditional Chinese culture can aid him through the hard time in this foreign land, Kai makes his determination to take the integration road.

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## Identity, Community Education and Private Schooling—On Gus Lee's *China Boy*

### REFERENCE

- 1) Adalberto Aguirre, Jr & H. Turner, Jonathan. *American Ethnicity: The Dynamics and Consequences of Discrimination*. Boston : McGraw-Hill, 2004.
- 2) Atkinson, Donald R. Atkinson, Morten, George & Derald Wing Sue. *Counseling American Minorities: A Cross-Cultural Perspective*. California: W.C. Brown Co., 1983.
- 3) Bronfenbrenner, Urie. *The Ecology of Human Development*. Cambridge: Harvard University Press, 1979.
- 4) Erikson, Erik H. *Identity: Youth and Crisis*. New York: Norton, 1968.
- 5) Feng, Yuanyuan. "The Role of Education of in the Construction of Identity: A Case Study of *Father and Glorious Descend and Fifth Chinese Daughter*." Diss. Zhengzhou University. <<http://www.cnki.net/kcms/detail/Detail.aspx>>
- 6) Fong, Timothy P. *The Contemporary Asian American Experience: beyond the Model Minority*. Upper Saddle River: Prentice Hall, 2002.
- 7) Healey, Joseph F. *Race, Ethnicity, Gender, and Class: The Sociology of Group Conflict and Change*. California: Pine Forge Press, 1998.
- 8) La Greca., Greca M. & Harrison, Hanah Moore. "Adolescent Peer Relations, Friendships, and Romantic Relations: Do They Predict Social Anxiety and Depression." *Journal of Clinical Child and Adolescent Psychology* 34 (2005): 49-61.
- 9) Lee, Gus. *China Boy*. New York: Penguin Books Ltd, 1991.
- 10) ---, *Honor and Duty*. New York: Ivy Books, 1994.
- 11) Park, Clara C, Goodwin, A. Lin & Stacey J. Lee ed. *Asian American Identities, Families, and Schooling*. Connecticut: Information Age Publishing Inc, 2003.
- 12) Phinney, Jean S. "Stages of Ethnic Identity Development in Minority Group Adolescents." *Journal of Early Adolescence* 9 (1989): 34-49.
- 13) ---, "Ethnic Identity: Developmental and Contextual Perspectives". Notre Dame University, 2004.
- 14) Phinney, Jean S. et al. "The Role of Language, Parents and Peers in Ethnic Identity Among Adolescents in Immigrant Families." *Journal of Youth and Adolescence* 2 (2001):135-153. <[http://potowski.org/sites/potowski.org/files/Phinney\\_et\\_al\\_2001](http://potowski.org/sites/potowski.org/files/Phinney_et_al_2001)>
- 15) Phinney, Jean S. & Ong, Anthony, D. "Conceptualization and Measurement of Ethnic Identity: Current Status and Social Directions." *Journal of Counseling Psychology* 3 (2007): 271-281. <<http://www.socsci.uci.edu/ssarc/clfm/webdocs>>
- 16) Phinney, Jean S. et al. "Ethnic Identity, Immigration, and Well-Being: An Interactional Perspective." *Journal of Social Issues* 57 (2001): 493-510. <<http://cretscmhd.psych.ucla.edu/events/PhinneyPaper>>
- 17) Phinney, Jean S. et al. "Intergroup Attitudes among Ethnic Minority Adolescents: A Casual Model." *Child Development* 68 (1997): 955-969. <<http://www.jstor.org/stable/1132044> >
- 18) Reyes, Angela. *Language, Identity, and Stereotype among Southeast Asian American Youth*. Mahwah: Lawrence Erlbaum Associates, 2007.
- 19) So, Christine. "Delivering the Punchline: Racial Combat as Comedy in Gus Lee's *China Boy*." *MELUS* 4 (1996): 141-155. <<http://www.jstor.org/stable/467646>>
- 20) Song, Hui. "The Regulator between Cultural Conflict and alienated identity." *The Great Wall* 5 (2009): 29-30. <<http://wuxizazhi.cnki.net/Article/ZUOJ200902056.html>>
- 21) ---, "A Quest for American Dream—An Analysis of *China Boy* by Gus Lee." Diss. Tianjin University of Technology, 2008. <<http://www.cnki.net/kcms/detail/Detail.aspx>>
- 22) Tajfel, Henri & Turner, John C. *An Integrative Theory of Intergroup Conflict*. Monterey: Brooks-Cole, 1979.
- 23) Tajfel, Henri ed. *Social Identity and Intergroup Relations*. Cambridge: Cambridge University Press, 1982.
- 24) Takaki, Ronald. *A Different Mirror: a History of Multicultural America*. Boston: Little Brown, 1993.
- 25) Wang, Langlang. *Identity-building in Toni Morrison's trilogy: Beloved, Jazz and Paradise*. Xiamen : Xiamen University Press, 2010.
- 26) Wang, Guanglin. *China Boy*. Trans. Ye, Xingguo. Nanjing: Yilin Press, 2004.
- 27) Wang, Guanglin. *Honor and Duty*. Trans. Zhang, Jiaoqin. Nanjing: Yilin Press, 2004.
- 28) Wang, Guanglin. *Being and Becoming: on Cultural Identity of Diaspora Chinese Writers in America and Australia*. Tianjin:

## Identity, Community Education and Private Schooling—On Gus Lee’s China Boy

Nankai University Press, 2004.

- 29) Yi, Haining. *From “Yellow Peril” to “Model Minority”: The Educational History of Chinese Americans, 1850-1990*. Columbia: Columbia University, 2000.



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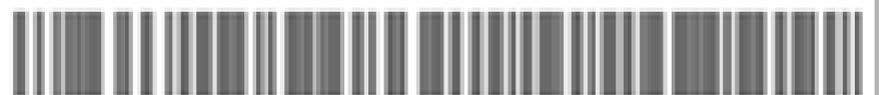
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